



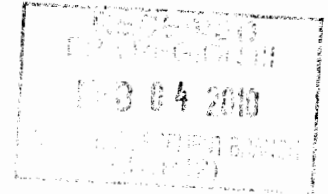
CITY OF READING, PENNSYLVANIA

UTILITIES DIVISION
WASTE WATER TREATMENT PLANT
815 WASHINGTON STREET
READING, PA 19601-3690
(610) 655-6258

PUBLIC WORKS
DEPARTMENT

January 29, 2010

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476



Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
4th Quarter 2009

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6258 should you have any comments or questions.

Sincerely,

A handwritten signature in cursive script, reading "Deborah A.S. Hoag".

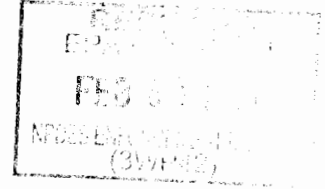
Deborah A.S. Hoag, P.E.
Utilities Division Manager

DH/eh

Cc: Christopher A. Day, Esq., US EPA
✓ Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Charles M. Jones, P.E., Director of Public Works
Ralph E. Johnson, Superintendent
Stephen K. Hydro, P.E., Black & Veatch
Anthony C. Vesay, P.E., Hill International
Keith Mooney, Esq., Legal Counsel
file



**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending December 31, 2009**



V. REMEDIAL MEASURES

A. General Duties

7. Duty to Comply with Permit – In progress. The City's wastewater treatment plant had no NPDES permit violations during this quarter.

8. Operation and Maintenance of the Facility – In progress. The City continues formalizing and documenting the operational and maintenance procedures related to the treatment plant, pump stations, collection system, and laboratory.

B. Interim Measures

9. Interim Compliance – Environmental Management System

(a) Submission – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. The City received comments from the PA DEP dated November 23, 2009 indicating compliance and encouraging the continuation of SCADA and pretreatment improvements. *The City awaits a response from the US DoJ and US EPA for the approval of the system and its components listed below as proposed.*

(b) Maintenance Management System - Continuing progress. The City continues the planned implementation of improved and expanded use of the Antero computerized maintenance management system. This ongoing increased use of the maintenance management system includes recurring work orders for maintenance upon discovery of the unaddressed cause of any problem. The use of this system is treated as an ongoing tool for the facilities' operations and maintenance. The wastewater treatment plant will migrate to the new CMMS being developed for the collection system due to the interrelated operations and maintenance activities.

(c) Supervisory Control and Data Acquisition (SCADA) system

1. Interim SCADA System – Completed and certified.

2. Upgrades to SCADA System – Not applicable. Upgrades not required based upon the submission and approval of paragraph 18. While not required by the Decree, the City continues progress with this operational tool in planning for the future plant improvements and ensuring operational consistency. Black & Veatch (B&V) has been retained to oversee the SCADA development for consistency and the development of standards and conventions for future use in the plant upgrades. Additional operational parameters continue to be added to the SCADA system. Troubleshooting is on-going regarding report generation and historical trending. The City has worked with B&V to develop the target enhancements with the existing SCADA system including alarm annunciation and history, security, and hardware and software upgrades. The security upgrades are complete while the other areas have ongoing

progress but not completion. Finally, options to utilize the SCADA system as a reference tool continue to be used for improvements to facility operations and maintenance.

(d) Pretreatment Data Management System – Continuing progress.

The City continues the ongoing data entry into a commercial pretreatment database as well as an abbreviated spreadsheet as analytical results are received from both City sampling and industry self-monitoring.

10. Interim Plant Influent Monitoring – Completed and continuing as required.

The City had compared two meters on the force main from the Sixth and Canal pump station (6&C PS) to the WWTP. One is close to the 6&C PS while the other is at the WWTP. Previously, the City had used the meter at the WWTP for the influent loading calculation. The City investigated the 42" force main routing for any causes of disparity in metering. Due to the age (1959) and condition of the primary device associated with the WWTP meter, the newer, non-invasive 6&C PS flow meter is being used. Beginning with the 2009 annual report to PA DEP, this calculated data absent recycle loads will be used for influent load comparisons for annual reporting. This will continue until this is no longer required due to physical changes to the influent lines for both sampling and metering flow.

As part of the influent monitoring, the City monitors the recycle flows as calculated from this influent load and the WWTP influent with recycles. A team has been created to evaluate and resolve questionable WWTP recycle loading data. This team has been assessing sample and flow data to determine the cause for what appears to be erratic or erroneous WWTP recycle data. A flow meter was added and sampling locations and techniques are being compared to assure representative samples are collected. Trending and comparisons to plant maintenance schedules have been determined to be part of the disparity and the team is continuing to investigate other influences. A pump was added for mixing to ensure the sample obtained for comparative purposes is representative of the influent with recycles and not subject to influences based upon location. Additional sampling from various locations contributing to this location will be planned to assess this. Results of this ongoing assessment will continue to be provided.

11. Interim Trickling Filter Performance Measures – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for trickling filter continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(a) Performance Improvements – Completed and ongoing as part of the Operations and Maintenance plan using the Computerized Maintenance Management System.

(b) Unit Efficiency Monitoring Recirculation Rate – Completed.

(c) Recirculation Rate - Completed with flow monitoring continuing for the primary recirculation. Since the identification of available piping, secondary trickling filter recirculation has been in continual use. The combined recirculation was increased to 75% with marked improvements

in the biological growth noted on the secondary trickling filters. City staff has made physical modifications to improve the flow metering for the secondary recirculation rate.

(d) Longer Term Monitoring and Reporting – Completed and continuing with modified locations as approved.

12. Process Control Testing – Completed and continuing as required. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for treatment units' continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

13. Dangerous Gas Detection – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Inspection and calibration are being done routinely and repairs are made when noted upon inspection.

14. Certified Plant Operators – The City currently has six shift supervisors who are assigned in categories as follows: day, evening, night, and rotating shifts, operational maintenance, and administrative. The supervisors began continuous coverage on November 1, 2006 as scheduled. To ease the tracking of licensed employees for the facility, a table has been developed for the facility's shift supervisors, and related City management staff. The facility currently requires a PA DEP Class A-2 for the plant and an E-4 for the collection system. These dual certification requirements have been extended to appropriate plant staff as they are also responsible for the pump station in the collection system. Shift supervisors, by virtue of their written job description, are required to pass the appropriate certification examination within twelve (12) months of hire or promotion into the position and all have done so. Most of the shift supervisors are new to the wastewater field. As a result, they are required to obtain the requisite operating experience prior to being issued their certification. During the third quarter of 2009, there were no changes with shift supervisors. All shift supervisors have received the appropriate PA DEP operator certification for the current facility as detailed in the table below.

The selected treatment alternative, as approved under Paragraph 18, requires an A-1 certification which is not currently required for the existing treatment plant. Most managers already possess this certification and some of the shift supervisors have studied and taken the activated sludge module in advance of the construction to be prepared for the plant's transition from trickling filters to activated sludge. Additionally, the City has been discussing flexibility with the certification wording with the AFSCME local representing first level supervisors so that changes in technology or certification requirements do not require additional contract negotiations. During the fourth quarter, an additional shift supervisor passed the examination module. Currently, two shift supervisors have this certification, two have passed the examination required for activated sludge and await the new plant to obtain the experience for the certification, and two have yet to pass the activated sludge examination module.

Employee	Title	PA DEP Certification
Charles M. Jones, P. E.	Director of Public Works	A,E – 1,2,3,4
Deborah A. S. Hoag, P. E.	Utilities Division Manager	A,E – 1,2,3,4
Ralph E. Johnson	Wastewater Superintendent	A,E – 1,2,3,4
Roger D. Hillibush	Operations Supervisor	A,E – 1,2,3,4
Russell L. Stoudt	Maintenance Supervisor	A,E – 1,2,3,4
Jackie C. Hendricks	Environmental Program Coordinator	A,E – 2,3,4
Amy L. Morriss	Laboratory Supervisor	A,E – 1,2,3,4
John P. Farrier	Systems Superintendent	E – 4
Gregory R. Fetter	Shift Supervisor – Operational Maintenance	A,E – 1,2,3,4
Robert E. Gensemer	Shift Supervisor - Administrative	A,E – 2,4 Passed 1,3
George E. Fultz, II	Shift Supervisor – Day	A,E – 2,4
Felix V. Stacherski	Shift Supervisor – Evening	A,E – 2,4
Daniel J. Dixon	Shift Supervisor – Night	A,E – 2,4 Passed 1,3
Roger R. Spitler	Shift Supervisor – Rotating	A,E – 1,2,3,4

As discussed in the March 21, 2006 meeting (and the July 10th telephone conference), the new supervisory employees do not have specific wastewater experience prior to their hire but are required to pass the certification exam within twelve months of hire. PA DEP certification experience and training requirements do not allow the issuance of the operator certification based solely on the passing of the examination. The City suggested changing from “individual shall be required to *obtain certification* within 12 months of the date of hire” to “individual shall be required to *pass the certification examination* within 12 months of the date of hire.” The City received a letter dated June 16, 2009 from PA DEP concurring with the language amendment.

15. Operations and Maintenance Plan - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. Progress continues with future planned activities as discussed in the submitted plan. In the assessment of key processes, the City took action to eliminate bottlenecks and vulnerabilities to improve the performance of the existing plant. This was done as a necessary step to ensure regulatory permit compliance until the construction and start-up of the new facilities. These are the interim improvements required in the Capital Improvements Plan. The City continues to make additional improvements beyond the initial assessments as part of the continual reevaluation and optimization of plant operations. The City will be updating this plan for internal use as many of the long-standing problem areas have been addressed. In the third quarter, operational focus unexpectedly switched to primary digestion when an internal biogas line repair became complicated. The digester had been out of service recently for inspection, testing, and repair of the biogas system including cover integrity. While out of service for the biogas line repair, biosolids were discovered in the lid’s attic which impacts operation. During the fourth quarter, the contractor’s emergency repair was completed with the tank returned to service. This is predicted to extend the life an additional seven to ten years. The City’s intention to continue with preparations for the reduced summer permit limits that are effective in May was delayed by the above digestion focus.

Equalization of recycle waste strength was a key area identified to improve the reliability and consistent treatment in order to achieve permit compliance during the summer limit season with lower temperatures. During the fourth quarter, the overall plan was determined for converting a secondary digester holding tank to an equalization tank. The final layout including materials and equipment requirements was developed. Most of the equipment was ordered and received, and the operations and maintenance teams are working together to coordinate the project's construction and implementation. The goal is to have the construction complete and tank in use in time for 2010's change to summer permit limits.

16. Staffing Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 30, 2005.

17. Interim Wet Weather Operational Strategy - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 7, 2006. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – Completed. See below.

(a) **Existing Plant Process Evaluation Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the validity of the evaluation presented. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(b) **Evaluation of Treatment Alternatives Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006 and formal presentation of the report and findings conducted at March 21st meeting. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance. At the May 26, 2009 meeting, the City requested the ability to have the regulators re-consider the biosolids handling alternatives and selection based upon changes in the regulatory, environmental, and economic climate in the past few years. The revised information B&V originally prepared for the City's review and consideration was submitted to US DoJ, US EPA, and PA DEP on June 30, 2009 for review and consideration. In the November 23, 2009 correspondence from PA DEP, there were no negative comments regarding the biosolids revision and the agency supported the selection of ultraviolet disinfection and relocation and construction of a new outfall. No formal comments have been received to date from US DoJ and US EPA on the additional information submitted.

19. Capital Improvements Plan – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 16, 2007. Preliminary costs for biological treatment and solids handling facilities were developed as part of the plant and treatment alternatives report. Common facilities including headworks facilities,

clarification, disinfection, and discharge are planned that were not required for the treatment alternative report. B&V prepared alternatives and cost estimates for wastewater routing between the 6th and Canal area and the WWTP as well as plant and pump station improvements required as a result. This was presented to City Council for their consideration and decision. Following their direction, B&V resumed the design of the WWTP headworks and influent pumping station as well as beginning the tunnel design from the 6th and Canal area to the WWTP. The team worked to get the headworks design on the same schedule as the remainder of the WWTP for design and construction as it is a critical element to be included in that bid package. A Notice to Proceed for the tunnel and influent pump station design was issued to B&V to minimize the schedule impacts while the formal contract amendment was developed and reviewed prior to execution. During the fourth, additional geotechnical investigation was ongoing along the proposed tunnel route. Additional details are included in the B&V report summary that follows.

In the assessment of key processes for the Operations and Maintenance Plan, the City took action to eliminate bottlenecks and vulnerabilities as well as to evaluate and make cost-effective interim upgrades for performance improvements to the existing plant. This was previously submitted as part of the Operations and Maintenance Plan required by Paragraph 15. The continual reevaluation and optimization of the existing plant operations is ongoing with current update information noted above in Paragraph 15.

20. Request for Proposals – Completed. The City issued a request for qualifications (RFQ) for the implementation of the selected treatment alternative to identify design firms to be invited to submit a proposal in response to the City's request for proposals (RFP). City Council awarded the \$12,954,355 contract to Black & Veatch on March 24, 2008. The final contract was executed on June 23, 2008 with a retroactive effective date of March 25, 2008.

The City requested proposals for WWTP upgrades project management (PM) and construction management (CM). City Council awarded the \$7,825,075 contract for both PM and CM to the team of Hill International/Weston Solutions/Hazen and Sawyer (HWH&S) on September 8, 2008. The final contract was executed on November 11, 2008 with a retroactive effective date of September 9, 2008.

21. Permit Applications and Design –Ongoing. A permitting coordination meeting was conducted on June 30th with the following regulatory agencies represented: PA DEP, US Army Corps of Engineers, Delaware River Basin Commission, and Berks County Conservation District (BCCD). Of note, the BCCD does not exist as is had and has been reorganized. During this transitional time, during this time there have been numerous issues with how this project will be handled for review, permitting, and inspection.

An internal City permitting coordination meeting to introduce details of the project to City planning, zoning, building, and code officials occurred on July 7th in an attempt to expedite the internal approvals process. They have indicated when they want to be updated and what level of design drawings they will be reviewing.

B&V has developed numerous permitting scenarios based upon the various components for the project as a whole and the manner in which different regulators and permitting bodies will review the plans.

A summary of the progress reports received from B&V for the WWTP design performed this quarter is attached.

A summary of the progress reports received from HWH&S for the WWTP PM/CM tasks performed this quarter is attached.

As discussed and requested at the May 26, 2009 meeting, the June 30, 2009 submittal included an updated design and construction schedule for review and consideration. A July 15, 2009 submittal provided the requested additional information regarding the construction management aspect of the project.

22. Permitting – Not applicable.

23. Construction Completion – No progress.

24. Start-Up and Operation – No progress.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. With the assistance of City sewer team personnel, ATS Chester began field data collection in July, 2006. The initial phase for field data collection is the sanitary interceptors and force mains with phase two being the remaining sanitary structures. The GIS mapping follows each phase's data collection with submission to the City for review and approval. Following schedule and data quality issues with ATS Chester, the City's legal counsel was able to reach an amenable agreement which requires the City to begin fresh and not rely on any ATS Chester data in our possession. The City discussed the impact of this contract on the Consent Decree deadlines in the May 26, 2009 meeting with the US DoJ, US EPA, and PA DEP. Following an expedited RFQ/RFP review process for interview and selection, City Council awarded a contract to Woolpert on August 24th. Contract details are being negotiated with a Notice to Proceed expected to be issued shortly. During the fourth quarter, a project kickoff meeting was conducted to allow for the database structure and setup to occur in advance of the contract execution. The anticipated schedule was included in the June 30, 2009 submittal for review and consideration.

(c) **GIS Mapping of the Storm Water Collection System** - In progress. The third phase for field data collection and GIS mapping is the storm water system. This is included in the new GPS contract discussed above.

26. Sanitary Sewer System Evaluation Program

(a) **I/I Analysis by Subsystem**

During this quarter, B&V and the City continued discussing the scheduling and coordination for the collection system investigative, mapping, modeling, and rehabilitative work.

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction have been completed by B&V for the I&I analysis. A draft report was submitted to the City for review and comment. Limited reliable data was available for the existing system and tributary populations. Draft prioritization of areas and predictions for peak flows were developed; however, data is being refined as new information is received. The hydraulic modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. Upon the receipt of a final data delivery from the prior GPS consultant on December 24, 2007, B&V set up and began calibrating the model. The data received still contained numerous apparent inaccuracies including incorrect pipe diameters which negatively impacts the hydraulic modeling. A detailed review of the data received was done to determine the extent of problems to be expected during the detailed hydraulic modeling. A test run of the hydraulic model with this data yielded 2700 errors which keep the model from running. In addition, there were 1800 warnings and 8800 information messages. This preliminary model run with the GPS data confirmed the concerns about the data quality. *The City has concerns about the schedule for completing the modeling based upon the ongoing issues with the quality of data received from the GPS field verification. This task is dependent upon the GIS mapping discussed above.* The hydraulic modeling requirements were discussed explicitly in the GPS pre-proposal conference with the phases of work to expedite the areas necessary for the hydraulic modeling.

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The City worked with B&V to develop a manhole numbering system for the sanitary sewer system. A preliminary assignment of identifiers was made to manholes indicated on available historical mapping. The numbering system will be refined as the GPS field inventory is conducted and the City is able to resolve discrepancies found between record drawings and the actual infrastructure in the field. Although not explicitly required within the Consent Decree, the City has engaged B&V to develop

a maintenance, operation and management (MOM) plan for the collection system in order to help set priorities and standardize operations of City sewer crews. The MOM plan is intended to serve as a guide for the execution of the required SSES as well as ongoing future maintenance of the collection system. B&V has provided draft technical specifications for additional system evaluation to be conducted in accordance with the I&I report recommendations. The smoke testing contract was awarded by City Council on September 22, 2008. Due to the time preparing and executing final contract documents, work was unable to be initiated prior to the freezing of the ground. Smoke testing began this quarter with a kickoff meeting on August 6, 2009 and field work beginning August 24, 2009. A measured total of 625,142 lineal feet were smoke tested of the 715,546 lineal feet anticipated in the subareas being investigated for inflow. The smoke testing as well as other field investigative work is weather dependent. Since that has been completed, there are various types of follow-up tasks being completed by both the City and the contractor including: manhole verification for missing and additional manhole locations, dyed water tracing for suspected sources, and data compilation and organization for final reporting.

27. Rehabilitation Plan – No progress. *The SSES is required to commence by May 7, 2008 while the dependent rehabilitation plan is due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 7, 2007. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-compliance for a given parameter for two consecutive quarters. AS penalty escalation had not been detailed in the ERP, the City has documented the process and amounts as a reference tool.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress. The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. The City continues issuing penalties for compliance issues that were not fined previously such as pH, late reports, late sampling, and late permit applications.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the municipalities with permitted industries have adopted the ordinance. US EPA provided the status from the 2005 audit listing the municipalities requiring ordinance adoption. This has been discussed with solicitors and directly with individual municipalities in question. Electronic versions of the City's sewer use ordinance have been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. This is being re-evaluated as the inter-municipal agreements are being discussed. Additional language pointedly addressing this issue is included in the proposed inter-municipal agreements.

35. Non-Residential Connection Evaluation and Investigation – In progress. The City has been working with the contributing municipalities to obtain information in order to send a survey to evaluate nonresidential users that may be subject to the pretreatment program. This has been requested among other submissions from individual municipalities. This was also discussed with the municipal meetings conducted in 2007 and municipal field meetings conducted in 2008. The City will be requesting assistance from a consultant or temporary direct hire due to the large number of surveys and inspections required.

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns. The City will be evaluating options to complete addressing the noted concerns due to timing. The technical specifications for an RFP are under development, and the City has begun investigating the use of temporary experienced direct hires to accomplish these tasks.

39. Quarterly SNC Reports to US EPA – In progress.

IX. CIVIL PENALTY

47. and 49. Penalty Amount and Payment Instructions – Completed.

X. SUPPLEMENTAL ENVIRONMENTAL PROJECTS: Angelica Stream Restoration

52. Details of SEPs listed below

- a) Background** - Not applicable.
- b) Goals of SEPs** - Not applicable.
- c) Removal of excess sediment and soil stabilization SEP** – Completed.
- d) Angelica Creek Restoration SEP** – Completed.
- e) Angelica Creek Riparian Buffer SEP** – Completed.
- f) Wetland Creation SEP** – Completed.
- g) Flood plain Meadow SEP** – Completed.
- h) Annual Maintenance and Access to SEPs** – Ongoing. Seasonal maintenance and mowing has begun.
- i) Design Costs and Final Plan** – Completed.
- j) Defendant Certification** – Not applicable.
- k) SEP Completion Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on January 30, 2008 as part of the 4th calendar quarterly progress report.

The Angelica Environmental Park ribbon cutting ceremony was held on July 28, 2008.

Additional Items related to Consent Decree

Personnel

Operator Certification – In 2005, the City administration supported management in both water and wastewater during AFSCME contract negotiations. Personnel in certain rank and file positions are given 24 months in which to pass the appropriate certification exams. New hires or transfers into operations are advised of the certification need initially and given materials to read and review as part of their orientation and training. Based on the AFSCME contract language, July 15, 2007 was the initial date for employees who were in operational positions 24 months ago to be required to be certified. From there, new employees' certification requirements are being tracked based on their position start date. The positions requiring certification are Fritz Island Operator (Plant Operator), Pump Tender, and Belt Filter Press Operator (Solids Operator). The first two positions each have four people to provide continual coverage while the last position currently has two people providing two shifts weekdays and weekend coverage as needed. The current AFSCME contract allows some additional flexibility related to uncontrollable changes in certification requirements due to process changes or regulatory changes. Currently, some employees are being affected by PA DEP's 2009-2010 budget year reduction in funding for wastewater certification programs and support. The employees are eligible for certification upgrades currently which are pending due to lack of program funding. During the fourth quarter, there were numerous personnel transfers in these positions as a result of Citywide layoffs and the bumping process as well as the normal bidding process. The following table shows the updated certification status of the rank and file employees in the positions requiring certification.

Position	PA DEP Certification
Plant Operator - Day	A,E – 2,4
Plant Operator - Evening	A,E – 2,4
Plant Operator - Night	A,E – 1,2,3,4
Plant Operator - Rotating	A,E – 2,4
Pump Tender – Day	A,E - 2,4
Pump Tender - Evening	A,E - 2,4
Pump Tender - Night	E - 4 Passed exam A – 2
Pump Tender – Rotating	E - 4 Passed exam A – 2
Solids Operator - Day	Due 06/16/2010
Solids Operator - Evening	Position open for bidding process

The City also has certified employees in positions not requiring certification. This is being reported as there is interest in obtaining certification by employees not in positions where it is a requirement. Two maintenance employees sat for operator certification and passed differing modules but not ones in combination as required to be listed below.

Position	PA DEP Certification
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Service Utility	Passed exam E - 4
System Equipment Operator 2	E - 4

Additional WWTP Upgrades –

Although not specifically discussed in the Consent Decree, the following upgrades are being included in the WWTP upgrades for technical and operational necessity of the required improvements.

New WWTP Outfall – During the first quarter of 2009, the City realized the need for a new outfall as B&V had done additional investigation on the current outfall pipe compared to the design flows for the WWTP upgrades. B&V has contacted PA DEP regarding the design constraints for this to be included in the WWTP upgrades. This will require additional permitting and coordination as the outfall is currently submerged below the Schuylkill River and proposed to remain that way. The update on this progress will be included in the B&V summary as it is included in the WWTP design contract.

Operations and Maintenance

Computerized Maintenance Management System (CMMS) for Collection System– To adequately perform and document an ongoing infiltration and inflow program, catalog televisual inspection, and track service calls and repairs in the collection system, the City determined the need for a formal method to catalog the information. Geographical documentation of this information was the selected method for the database structure. The City has a static database of City information Woolpert has prepared for testing and training purposes. Woolpert made modifications to incorporate the existing work order format, priority, and assignment. Recurring safety and administrative functions are being incorporated into the existing CMMS and will be migrated into this software. Ultimately, this software is planned to be used in much of the Public Works Department.

A faster communication speed to City Hall servers is required to run the software efficiently as viewing the static database is rather challenging to our communication system. The City's Information Technology (IT) division of the Finance department is now involved in attempting to address the communication speed problem. During the third quarter, the Finance Department and its IT division decided to require the utility to replace the existing telephone lines and mount them on the poles as the first step in improving communication speed. Ultimately, this was completed but communication speed has not improved. During the fourth quarter, IT and Finance returned to the concept of using wireless communication and involved the Law department with the use of a tower for components. While the legal and technical hurdles are being addressed, the contractor has been authorized to purchase the equipment required. Once this is complete, the CMMS project can be restarted.

42" Force Main and WWTP Influent Routing – This conveyance is impacted by the hydraulics with the WWTP design and has been reviewed by the City and the PM/CM team. Due to the WWTP upgrades impact on hydraulics and the collection

system in this area, this must be addressed to not impact the design and construction schedule for the WWTP. This topic was discussed with City Council on several occasions as well as a public meeting conducted on May 27, 2009. On June 8, 2009, Council voted to authorize and direct B&V to incorporate the tunnel option into the WWTP design. Preliminary engineering and planning for additional geotechnical investigation continued with a formal Notice to Proceed issued on September 28, 2009 while the contract amendment was being negotiated between B&V and the City. The design update will be included in the B&V update in the future.

Laboratory and Administration

Land and Building – The City purchased a parcel of land in 2005 adjacent to the wastewater treatment plant to be used for the construction of a new building for the administration, laboratory, and collection system. The City purchased a second adjacent parcel in March 2007. The City intends to construct a LEED-certified, ‘green’ building and an access bridge across the Mifflin Arm of the Schuylkill River to the WWTP. On February 23, 2009 City Council awarded the civil engineering services contract to Herbert, Rowland & Grubic (HRG) and the architectural services contract to Seiler + Drury (S+D). Each firm’s contract documents have been executed. Of note, sketch plans for land development review and consideration have been submitted to Cumru Township’s Planning Commission (PC) to introduce the project at their June meeting. The project has been separated into phases with the building as phase one and the bridge connecting to the WWTP as phase two to expedite the PC review and approval. Conditional final plan approval for phase one was received at the September 14th PC meeting with the Township Commissioners approving the project at their September 15th meeting. Requisite permitting is being finalized and the individual firms’ detailed summary of work for the quarter follows. During the fourth quarter, demolition plan and specifications were finalized to raze the existing structures salvaging some materials for reuse. This contract was awarded and is in the process of being executed.

Administrative

Contributing Municipalities - The City and B&V met individually with the municipalities that contribute flows to the City’s wastewater system and plant to provide background information and the City’s current status including technical information related to the Consent Decree requirements. Also, the City wanted to obtain current status of flow projections and I&I reduction efforts. Some municipalities and authorities had their own staff or officials in addition to the appropriate engineers. In addition to the Consent Decree requirements for plant upgrades and system projects, the need for municipal adoption of the City’s sewer use ordinance was discussed as well as the need for ongoing communication regarding non-residential customers both being related to the industrial pretreatment program. Finally, the process to be followed when planning for new development and the use of PA DEP planning modules were discussed as well.

Field meetings were conducted in the spring and summer of 2008 to inspect each connection point, metering location, and terminal pumping stations to the City system as well as available mapping for the system. This information is being used to

develop more accurate service area mapping by connection point. Follow-up meetings have been conducted to view interconnection points between contributing municipalities and additional information requests have been made based upon the findings of each meeting.

The City solicited proposals from legal firms to assist in the evaluation of the existing Intermunicipal agreements (IMAs) and the renegotiation of new IMAs. Proposals were received on May 27, 2009 with review, interviews, and selection expedited prior to the June 8, 2009 Council award of contract. Fox Rothschild reviewed the City's existing IMAs and other wastewater IMAs, met with the City's committee, drafted revised and reorganized IMAs for review, and met informally with larger bulk municipal customers. The new IMAs will shortly be presented to the municipalities to begin discussions.

Funding - Some key aspects of funding clarification were added to the RFP for the WWTP PM team discussed above in paragraph 20. Grant funding is included in the PM/CM update that follows. The City learned on July 13, 2009 that they were awarded a \$5 million grant in the first round of H2O PA grants. Research was conducted to determine the action required for release of \$500,000 in the form of a US EPA STAG grant designated for the City in the 2009 federal budget. Meetings were conducted with various agencies regarding financing the capital improvements. These tasks were done by the PM team and are included in their report.

Financing - The City and its support team has been working to determine the rate impact on the users based upon the financing required for the projects. The needs for going to the bond market are being reviewed and prepared. From the technical aspect, an engineer's report is required to obtain the revenue bonds. During this quarter, B&V as the design engineer submitted a proposal to do a phased approach to the complete engineer's report beginning with an affordability study.

Response Times and Clarifications - The City continues to work in good faith on compliance issues outlined within the Consent Decree. There is concern regarding delays in regulatory responses for questions posed during meetings or within progress reports. As investigative field work in the collection system intensifies, previously identified concerns regarding timeline discrepancies within the Consent Decree become more evident. Clarification is critical to allow the City to balance the allocation of human and financial resources in efforts to maintain compliance.

PA DEP Meetings - B&V has been in telephone contact with PA DEP on several permitting issues relative to the WWTP design.

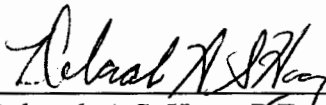
NPDES Permits and Limits - A May 28, 2009 NPDES draft permit was received from PA DEP for the permit which expired on May 1, 2006. The City reviewed the draft limits and began preparing a comment letter to discuss the permit changes as well as the requested information to be incorporated. As discussed in a May 2008 meeting with the permit writer, the final NPDES Part I discharge permit is not anticipated to be released prior to the Part II construction permit per the PA DEP policy when improvements are being planned for a facility. A May 28, 2009 draft permit was received for review and comment. The City issued a comment letter and met with the permit writer to prepare for the final discharge permit issuance. Another draft permit was received electronically on December 3, 2009 and the City is in the process of reviewing and commenting on the draft received.

VI. REPORTING REQUIREMENTS

41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.



Deborah A.S. Hoag, P.E.
Utilities Division Manager

02/01/2016
Date

Black & Veatch WWTP Design Engineering Progress Report Fourth Quarter 2009 Summary

Project Management

- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Worked on Front-end Documents for specifications
- Met with City to review and discuss amendment request.
- Provided additional project schedule information as requested.
- Attended meeting to discuss financial services for the project being requested of B&V
- Worked on development of requested scope of services for financial activities including rate study and bond feasibility study
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Met with City to review and discuss amendment request.
- Provided additional project schedule information as requested.
- Attended meeting to discuss financial services for the project being request of B&V
- Worked on development of requested scope of services for financial activities including rate study and bond feasibility study
- Continued discussions with the City regarding the rate study and bond feasibility study.
- Received and responded to PM/CM comments on Amendment No. 1.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Continued to provide support for development of contract for rate study and bond feasibility study.
- Continued working with the City in review of amendment items.
- Participated in discussion with Entech and MetEd for review of power supply for the plant.

Design

- Level 2 workshops (10/5,6,7 and 10/28)
- Receipt and response to PM/CM comments to Level 2 submittal
- Development and submittal of cost opinion for Level 2
- Receipt and review of City's requested spare parts list
- QA/QC of Level 2 Documents
- Initiation of Level 3 activities
- Working with Geotechnical subconsultant to finalize geotechnical report
- Working with surveyor for test-pit locations
- Continued review of digester gas reuse options
- Receipt of staging area requests from PM/CM

- Review and coordination of equipment installations for City visits
- Continued attempts to coordinate activities with MetEd
- Provided additional background and calculations for final clarifier sizing
- Coordination efforts with HRG for lab admin building design
- Provided minutes from Level 1 Headworks review meeting
- Review of Entech proposal for work with substation and MetEd
- P&ID review meeting
- Researched scum concentrators at the request of the City
- Provided information as follow-up to Cumru township for their 10/20 meeting
- Provided front end documents for review by the City and attorney
- Worked on updates to BDR
- Prepared and distributed Level 2 workshop meeting minutes.
- Received PM/CM's Level 2 interim comments (11/2)
- Received PM/CM's Level 2 final comments (12/2)
- Continuation of Level 3 activities
- Working with Geotechnical subconsultant to finalize geotechnical report
- Working with surveyor for test pit locations
- Continued review of digester gas reuse options
- Review and coordination of equipment installations for City visits
- Continued attempts to coordinate activities with MetEd
- Coordination efforts with HRG for lab admin building design
- Received staging area info from PM/CM
- Test pits on plant site
- Review of spare parts list received from City
- Worked on MetEd ROW for future utilities
- Updated BDR
- Received level 2 comments from PM/CM on Nov 25th
- Worked with architect for coordination with lab admin bldg
- Review of post aeration options
- Modified pumps in thickened sludge and centrate decant PS
- Site visit to Connecticut for equipment review
- Reviewed locations for additional equipment site visits
- Received PM/CM comments on level 2 cost opinion
- Worked on sampler enclosures
- Reviewed utility water demands
- Continued work on geotechnical report
- Reviewed sampling of side streams with City - sampling sink vs. sampler
- Review of hoists for pump removal throughout plant
- Reviewed reuse vs. replacement of existing 42" FM on WWTP site with City - replacement was selected
- Provided concept for FOG facility bldg - approved by City
- Reviewed centrate discharge - gravity vs. pumped - gravity selected
- Provided info on surveying costs
- Received clarification from City on steam cleaning equipment to be supplied

- City revisited previous decision to use packing for all pump seals
- Met with City and PM/CM to review design comment matrix.
- Continuation of Level 3 design and submittal preparation.
- Received comments from PM/CM on front-end documents and Division 1 specification sections on December 18, 2009.
- Working with Geotechnical subconsultant to finalize geotechnical report
- Working with surveyor for test pit locations
- Developed and submitted digester gas utilization for facility heating memorandum (TM-16).
- Review and coordination of equipment installations for City visits
- Continued attempts to coordinate activities with MetEd
- Coordination efforts with HRG for lab admin building design
- Reviewed proposed post aeration modifications with the City.
- Continued review and coordination of centrifuge installations for site visit.

Permitting

- Continued work with regulators and development of stormwater permitting documents
- Meeting with BCCD and continued coordination given the transition of the District office
- Continued work with identifying mitigation plan requirements for red bellied turtle
- Contact with PennDOT on permitting requirements
- Contact with Norfolk Southern on permitting requirements
- Received and submitted Bog turtle report
- Work on land development permit requirements
- Provided proposed stormwater management alternatives to City for review
- Continued work with regulators and development of stormwater permitting documents
- Meeting with BCCD and continued coordination given the transition of the District office
- Continued work with identifying mitigation plan requirements for red bellied turtle
- Contact with PennDOT on permitting requirements
- Contact with Norfolk Southern on permitting requirements
- Received and submitted Bog turtle report
- Work on land development permit requirements
- Provided proposed stormwater management alternatives to City for review
- Retained subconsultant to develop mitigation plan for the turtle habitat.
- BCCD meetings - process and expedited review
- Met with PADEP and provided BDR
- Continued stormwater design
- PADEP meetings for permitting
- Worked on post construction Stormwater management plan
- Review of FEMA data

- Worked on red bellied turtle mitigation plan
- Worked on Bog turtle clearance
- Provided information on final clarifier loadings
- Confirmed agencies will provide conditional approvals and concurrent reviews
- Reviewed permitting requirements with DRBC
- Worked with agencies to clarify fees and schedules
- Worked with regulators on separating tunnel/ IPS and WWTP permitting
- Provided applications and fees to City for BCCD and DRBC
- Provided sample tunnel permits to PADEP for reference
- Continued work w/ regulators on requirements for stormwater permitting
- Continued coordination with BCCD for permit application submittal.
- Continued work identifying mitigation plan requirements for red bellied turtle
- Work on land development permit requirements
- Continued review of tunnel permitting requirements with PADEP, BCCD, and ACOE.
- Received and reviewed draft permit information provided by PADEP.
- Requested status updates from City on permit application fee check requests.

Site Investigations

- Continued coordination with BIA on surveying efforts.
- Marked locations for potholing of potential pipe conflicts.
- Continued surveying efforts for Sixth and Canal area and Tunnel alignment.
- Continued coordination with Lab admin building and firing range.
- Continued coordination with BIA on surveying efforts.
- Marked locations for potholing of potential pipe conflicts.
- Continued surveying efforts for Sixth and Canal area and Tunnel alignment.
- Continued coordination with Lab admin building and firing range.
- Continued coordination with BIA on surveying efforts.
- Continued surveying efforts for Sixth and Canal area and Tunnel alignment.
- Continued coordination with Lab admin building and firing range.

Geotechnical Services

- Completed geotechnical investigations of the mine area probes.
- Continued review of comments on Geotechnical Data Report being utilized for design.
- Completed geotechnical investigations of the mine area probes.
- Continued review of comments on Geotechnical Data Report being utilized for design.
- Continued review of comments on Geotechnical Data Report being utilized for design.

Tunnel / Influent Pump Station Design

- Continued survey for tunnel design.
- Continued planning, negotiations, and scheduling of geotechnical subconsultants for the Phase 2 geotechnical investigation.

- Reviewing local sewer connections requirements for connection to tunnel.
- Requested City makes contact with property owners regarding project.
- Contacted Brentwood to discuss project.
- Continued work on design of influent pump station.
- Continued design efforts and planning
- Planning for surface connections and drop structure designs
- Planning for shaft locations and drop structure design
- Contact with property owners for boring program
- Coordination of field activities for borings given City's notice on 9/28
- Discuss of permitting requirements with regulators
- Performing survey work along alignment
- IPS layout conceptual design
- Tech Memo 13 development and review (10/28) with City
- Coordination with tunnel design activities
- Coordination with pump vendors
- Continued survey for tunnel design.
- Continued planning, negotiations, and scheduling of geotechnical subconsultants for the Phase 2 geotechnical investigation.
- Reviewing local sewer connections requirements for connection to tunnel.
- Continued work on design of influent pump station.
- Continued design efforts and planning
- Planning for surface connections and drop structure designs
- Planning for shaft locations and drop structure design
- Contact with property owners for boring program
- Coordination of field activities for borings given City's notice on 9/28
- Discuss of permitting requirements with regulators
- Performing survey work along alignment
- IPS layout conceptual design
- Provided meeting minutes for Tech Memo 13 review meeting with City
- Developed IPS wet well access technical memorandum (TM-14).
- Developed IPS wet well optimization technical memorandum (TM-15).
- Developed basis of design for the IPS for inclusion in the Basis of Design Report.
- Coordination with tunnel design activities
- Coordination with pump vendors
- Contacted PennDOT and Norfolk Southern
- Continued tunnel geotechnical investigation and design of drop shaft
- Contacted screening vendors for 6th and Canal drop shaft
- Continued surveying of tunnel alignment
- Attended Council meeting for amendment
- Performed geophysical investigations along alignment
- Continued definition of drawings and specification requirements
- Continued review and verification of flows
- Reviewing local sewer connections requirements for connection to tunnel.
- Continued work on design of influent pump station.

- Continued design efforts and planning
- Planning for surface connections and drop structure designs
- Planning for shaft locations and drop structure design
- Contact with property owners for boring program
- Coordination of field activities for borings given City's notice on 9/28
- Discuss of permitting requirements with regulators
- Performing survey work along alignment
- IPS layout conceptual design
- Contacted pump manufacturers and vendors for review of IPS
- Submitted revised sections of the BDR associated with the IPS (Sections 2, 8, and 9).
- Coordination with tunnel and IPS design activities
- Continued geotechnical investigation program for the tunnel alignment

Hill International/Weston Solutions/Hazen & Sawyer
WWTP Upgrades PM/CM
Fourth Quarter 2009 Progress Report

Project Management (Hill):

- Performed required administration functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination.
- Participated in several client coordination meetings: Design Updates, Operational update (with Utilities Division Manager), City Manager briefs, Brief to the Mayor, City Council update, Level 2 Design workshop, Legal Team and Financial Team updates; finalized Industry Day deliverables.
- Participated in several internal coordination meetings with PM/CM team.
- Participated in several discussions with the Public Works Director regarding the project draw schedules and Engineer's Report and Rate Study.
- Reviewed and published summary and comparison information on the designer's Level 2 submission (technical and cost).
- Prepared and published the designer's schedule assessment letter; prepared a draft master project schedule.
- Reviewed Grant Funding and Financial Analysis deliverables.
- Updated the WWTP System Draw Schedule/Cash Flow.
- Performed required administrative functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination.
- Participated in several client coordination meetings: Design Updates, Operational update (with Utilities Division Manager), Funding Coordination meetings (with the City's finance representative), City Manager briefs, and City Council updates.
- Participated in several internal coordination meetings with PM/CM team as well as other contracted team members (i.e. legal/Inter-Municipal Agreement review)
- Reviewed and published updated project and cash flow schedules.
- Updated the project's master schedule.
- Reviewed and edited the PM/CM Design Level 2 Comment Matrix.
- Reviewed the Grant Funding and Financial Analysis deliverables.
- Reviewed and commented on B&V's Level 2 Cost Opinion.
- Reviewed and commented on B&V's IPS/Tunnel amendment.
- Reviewed and commented on B&V's Financial Consulting Amendment.
- Prepared a draft PM/CM Level 2 Assessment.
- Updated and published the project's Critical Driver List.
- Performed required administrative functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination.
- Participated in several client coordination meetings: Design Updates, Operational update (with Utilities Division Manager), Funding Coordination meetings (with the City's finance representative), and City Manager briefs, as well as designer change order discussions.
- Participated in several internal coordination meetings with PM/CM team as well as other contracted team members (i.e. Legal/Inter-Municipal Agreement review)

- Reviewed and published updated project and cash flow schedules.
- Updated the Critical Project Driver document.
- Reviewed and edited the PM/CM Design Level 2 Comment Matrix.
- Reviewed the Grant Funding and Financial Analysis deliverables.
- Reviewed potential Cost Savings options.
- Reviewed and commented on B&V's IPS/Tunnel amendment.
- Reviewed and commented on B&V's Financial Consulting Amendment.
- Prepared a draft PM/CM Level 2 Assessment.
- Reviewed and submitted Front End/Bid Document deliverable.

Project Controls (Hill):

- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted documents for project team.
- Updated Draw Schedule and presentation slides as required.
- Prepared schedule revisions and time impact analysis based on B&V updated schedule.
- Prepared executive level master project schedule.
- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted documents for project team.
- Updated Draw Schedule and presentation slides as required.
- Prepared schedule revisions and time impact analysis based on B&V updated schedule.
- Updated and published executive level master project schedule.
- Reviewed and commented on front end specifications for trailer camp, computer suite, scheduling and electronic communications.
- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted documents for project team.
- Updated and published executive level master project and cash flow schedules.
- Added bond information to master project schedule.

Value Engineering: N/A

Design Review/Tech Support: (Hazen-Sawyer and Weston):

- Attended Weekly Design Update meetings.
- Attended Weekly PM/CM coordination meetings.
- Provided review of Level Two documents.
- Provided review of Technical Memorandum No. 13.
- Attended P&ID workshops.
- Attended Level Two workshops.

- Participated in client site visits.
- Attended Weekly Design Update meeting.
- Attended Weekly PM/CM coordination meetings.
- Attended Schedule and Front End Document Meeting.
- Finalized review and preparation of Level Two Comment Matrix.
- Provided review of Final Clarifier Loadings.
- Provided review of Scope of Work for Engineer's Report to Bonding Agencies.
- Provided review of Scope of Work for Tunnel Amendment.
- Assisted in preparation of the Level Two Assessment.
- Reviewed geotechnical scope of work for B&V's change order.
- Reviewed the designer's Level 2 Cost Opinion.
- Attended Weekly Design Update meeting.
- Attended Weekly PM/CM coordination meetings.
- Reviewed the designer's Level 2 Cost Opinion, provided final comments
- Attended meeting to closeout items on Level 2 Matrix.
- Attended conference calls regarding Potential Cost Savings Options.
- Attended calls and meeting regarding B&V Amendment.
- Prepared Design Update Meeting Minutes 28, 29, 30 and 31.

Regulatory Compliance: N/A

Grant Funding (Duane Morris):

- Participated in several PM/CM conference calls.
- Participated in on site meetings.
- Updated slides and other reports as required.
- Revised funding summary as required.
- Revised and submitted VE study submission.
- Researched Buy American Act and Steel Products Procurement Act and briefed Owner.
- Participated in several PM/CM conference calls.
- Participated in on site meetings.
- Updated slides and other reports as required.
- Revised funding summary as required.
- Reviewed and commented on front end ITB documents.
- Reviewed B&V's rate study scope
- Reviewed and commented on H2O PA Grant Agreement.
- Prepared information on individual registration with PennVEST.
- Participated in several PM/CM conference calls, including rate and engineer's study calls.
- Participated in on site meetings, topics included Inter-Municipal Agreements and status of grant applications.
- Updated slides and other reports as required.
- Reviewed design engineer comments and provided information.

Financial Analysis: (PFM):

- Participated in several PM/CM conference calls.
- Worked on the Pro forma model including a growth rate analysis.
- Provided Comments on the proposed Inter-Municipal agreement.

Public Relations: N/A

Surveying: N/A

Construction Management (Weston):

- Attended project team meeting conference calls.
- Reviewed Level 2 Design.
- Attended Cumru Township and Met-Ed meetings.
- Attended Level 2 workshops.
- Reviewed the designer's Level 2 Cost Opinion.
- Attended an internal PM/CM coordination meeting to advance the project schedule and discuss front end documents and B&V Cost Opinion.
- Attend project team meeting conference call.
- Reviewed the designer's Level 2 Cost Opinion.
- Attended an internal PM/CM coordination meeting to advance the project schedule and discuss front end documents and B&V Cost Opinion.
- Attend project team meeting conference call.

Resident Engineer: N/A

Inspection: N/A

Health and Safety: N/A

Start-up: N/A

Herbert, Rowland & Grubic
Utilities Building Civil Engineering Services
Fourth Quarter 2009 Summary

Preliminary Sketch/LEED

- Calculate site coverage and other backup information to document credits
- Coordinate with Client and Architect regarding possible inclusion of new site credit (5.1 – restore habitat)
- Prepare exhibit regarding natural vegetation and non-mowed areas for review Coordinate with site lighting consultant
- Complete online templates.
- Perform landscaping design and area calculations to justify LEED 5.1 credit.

E&S / NPDES

- Coordinate with LCCD regarding BCCD closing
- Update E&S plans to incorporate red-bellied turtle recommendations
- Update E&S specifications
- Coordinate with Client regarding E&S fees
- Begin work on Phase 2 E&S design to support stream crossing
- Coordinate check pickup and submission of Phase 1 E&S package
- Coordinate with Client regarding Phase 2 E&S fees
- Prepare Phase 2 E&S design and report to support stream crossing
- Compile and submit Phase 2 E&S package.
- Review comments to Phase 1 submission
- Begin revisions to address comments.

Driveway and Road Widening HOP

- Review of PennDOT comments
- Coordinate with PennDOT regarding potential shoulder cross slope conflicts
- Revise plans to address comments
- Prepare response letter
- Resubmit HOP plans to PennDOT and Cumru Township and provide a set to Great Valley Consultants.
- Begin additional work (as requested by the Client) to coordinate HOP applications for various utilities including RAWA
- Request executed form and check from Client
- Coordinate with PennDOT regarding status of resubmitted plans
- Revise plans to address PennDOT review comments
- Prepare response letter
- Prepare additional HOP application form for client signature.

Bid Package

- Attend team meeting to discuss completion of plans, bid process, and schedule Complete sitework specifications
- Update per RAWA requirements
- Complete construction plans
- Post to ftp site as requested by Architect.

- Coordinate with construction manager
- Revise and update construction plan information as requested
- Review budget meeting notes and coordinate with project architect
- Revise and update construction plan information and specifications as requested

Bid Estimate

- Coordinate with construction manager regarding project budget
- Coordinate with Cumru Township regarding sewer tapping fees
- Review of updated project budget
- Attend meeting to discuss budget and potential cost saving items

Water Pressure Test

- Follow up with WWTP consultant regarding status of flow and pressure study
- Coordinate with construction manager and City regarding RAWA forms and fees
- Meet with City, RAWA, and WWTP consultant regarding project and process to complete flow and pressure study and obtain RAWA review
- Coordinate with City, RAWA, and WWTP consultant to schedule and conduct flow and pressure test
- Forward test results to City and WWTP consultant

Coordination with WWTP Team

- Coordinate with WWTP design engineer and Herpetological Associates regarding PFBC response to red bellied turtle survey report (all projects)
- Coordination with WWTP design engineer regarding water connection point
- Revise access drive profile and grading at connection to island drive

Bridge Design

- Miscellaneous coordination regarding design schedule
- Preliminary design and alignment coordination

Bridge Geotechnical Investigation

- Locate and survey stakeout of proposed foundation soil borings

Permitting

- Progress on Joint Permit Application
- Progress on Joint Permit Application forms

Seiler + Drury
Utilities Building Architectural Services
Fourth Quarter 2009 Summary

On February 27th of 2009, our office received the Notice to Proceed from the Department of Public Works authorizing our project team to begin Architectural Services towards the development of the new Public Works Utilities Building at the City of Reading's Wastewater Treatment Complex.

Architectural and engineering services during October included the following highlights:

- Team Coordination Meeting of October 1st (Owner-Professionals) –for review of final finish selections and discussion of project timetable
- Preparation of Final Project Permit Set for first week of November delivery
- Extent of services during this time period focused on final Construction Documentation coordination including a Quality Control / Quality Assurance review and preparation of final permit submission set.

Project Progress includes development of the following items:

- 1) Attend Team Coordination Meeting of October 1st
- 2) QC/QA review of final bid plans and specifications
- 3) Preparation of Meeting Minutes per individual meetings and phone conferences.
- 4) Preparation of USGBC LEED templates of final design set.

Architectural and engineering services during November included the following highlights:

- Delivered Final Project Permit Set during first week of November
- Extent of services during this time period focused on final Construction Documentation coordination including a Quality Control / Quality Assurance reviews and assembly of final permit submission set.

Project Progress includes development of the following items:

- 1) QC/QA review of final bid plans and specifications
- 2) Preparation of USGBC LEED templates of final design set.

Architectural and engineering services during December included the following highlights:

- Documentation coordination including a Quality Control / Quality Assurance reviews and assembly of final project bid set.
- Review of final pricing information and an assessment of value engineering alternatives.
- Developed an agreed upon Value Engineering work scope and provided Amendment 002 to revise final bid set to incorporate scope reduction measures.
- Provide revisions to the final construction set in accordance with Amendment 002

Project Progress includes development of the following items:

- 1) Value engineering review meeting of 11/25/09
- 2) Value engineering –Contract Amendment 002 submitted and approved
- 3) Preparation of final bid set inclusive of value engineering measures.
- 4) Continued QC/QA review of completed project documentation
- 5) Continued review of final finishes and colors throughout new facility.



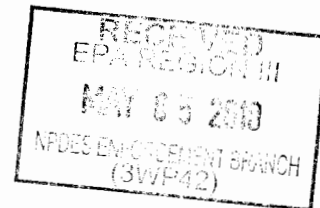
CITY OF READING, PENNSYLVANIA

UTILITIES DIVISION
WASTE WATER TREATMENT PLANT
815 WASHINGTON STREET
READING, PA 19601-3690
(610) 655-6258

PUBLIC WORKS
DEPARTMENT

April 30, 2010

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476




Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
1st Quarter 2010

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6258 should you have any comments or questions.

Sincerely,

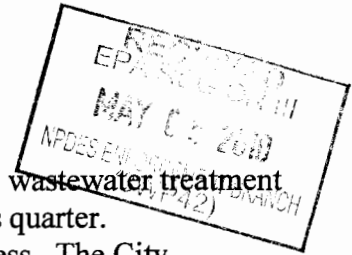

Deborah A.S. Hoag, P.E.
Utilities Division Manager

DH/eh

Cc: Christopher A. Day, Esq., US EPA
✓ Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Carl Geffken, Acting Managing Director
Charles M. Jones, P.E., Director of Public Works
Ralph E. Johnson, Superintendent
Stephen K. Hydro, P.E., Black & Veatch
Anthony C. Vesay, P.E., Hill International
Keith Mooney, Esq., Legal Counsel
file



**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending March 31, 2010**



V. REMEDIAL MEASURES

A. General Duties

7. Duty to Comply with Permit – In progress. The City's wastewater treatment plant (WWTP) had no NPDES permit violations during this quarter.

8. Operation and Maintenance of the Facility – In progress. The City continues to formalize and document the operational and maintenance procedures related to the treatment plant, pump stations, collection system, and laboratory.

B. Interim Measures

9. Interim Compliance – Environmental Management System

(a) Submission – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. The City received comments from the PA DEP dated November 23, 2009 indicating compliance and encouraging the continuation of SCADA and pretreatment improvements. *The City awaits a response from the US DoJ and US EPA for the approval of the system and its components listed below as proposed.*

(b) Maintenance Management System - Continuing progress. The City continues the planned implementation of improved and expanded use of the Antero computerized maintenance management system. This ongoing increased use of the maintenance management system includes recurring work orders for inspections and maintenance upon discovery of the unaddressed cause of any problem. The use of this system is treated as an ongoing tool for the facilities' operations and maintenance. The wastewater treatment plant will migrate to the new CMMS being developed for the collection system due to the interrelated operations and maintenance activities. This will begin upon the communication speed improvements being finalized between City Hall and the WWTP.

(c) Supervisory Control and Data Acquisition (SCADA) system

1. Interim SCADA System – Completed and certified.

2. Upgrades to SCADA System – Not applicable. Upgrades not required based upon the submission and approval of paragraph 18. While not required by the Decree, the City continues progress with this operational tool in planning for the future plant improvements and ensuring operational consistency. A local electrical, instrumentation, and controls contractor worked with WWTP staff on the automated report generation the first quarter. Some basic reports have been developed and are being reviewed for accuracy of data and automation of generation. The areas required by the Consent Decree are the first to be targeted with additional reports to follow after refinements are made to these. Based upon the success of this assignment, the local firm may get additional tasks. Additional operational parameters continue to be added to the

SCADA system. Finally, options to utilize the SCADA system as a reference tool continue to be used for improvements to facility operations and maintenance.

(d) Pretreatment Data Management System – Continuing progress. The City continues the ongoing data entry into a commercial pretreatment database as well as an abbreviated spreadsheet as analytical results are received from both City sampling and industry self-monitoring.

10. Interim Plant Influent Monitoring – Completed and continuing as required. The City had compared the flows from two meters on the force main from the Sixth and Canal pump station (6&C PS) to the WWTP. One is at the 6&C PS while the other is at the WWTP. Previously, the City had used the meter at the WWTP for the influent loading calculation. The City investigated the 42" force main routing for any causes of disparity in metering. Due to the age (1959) and unknown condition of the primary device associated with the WWTP meter, the newer, non-invasive 6&C PS flow meter is being used. Beginning with the 2009 annual report to PA DEP, this calculated data absent recycle loads will be used for influent load comparisons for annual reporting. This will continue until a single sampling and metering location exists in the influent lines to the WWTP for a true, raw influent.

As part of the influent monitoring, the City monitors the recycle flows as calculated from this influent load and the WWTP influent with recycles. A team has been created to evaluate and resolve questionable WWTP recycle loading data. This team has been assessing sample and flow data to determine the cause for what appears to be erratic or erroneous WWTP recycle data. A flow meter was added and sampling locations and techniques are being compared to assure representative samples are collected. Trending and comparisons to plant maintenance schedules have been determined to be part of the disparity and the team is continuing to investigate other influences. A pump was added for mixing to ensure the sample obtained for comparative purposes is representative of the influent with recycles and not subject to influences based upon location. Additional sampling from various locations contributing to this location is being conducted to assess this. Results of this ongoing assessment will continue to be provided.

11. Interim Trickling Filter Performance Measures – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for trickling filter continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(a) Performance Improvements – Completed and ongoing as part of the Operations and Maintenance plan using the Computerized Maintenance Management System.

(b) Unit Efficiency Monitoring Recirculation Rate – Completed.

(c) Recirculation Rate - Completed with flow monitoring continuing for the primary recirculation. Since the identification of available piping, secondary trickling filter recirculation has been in continual use. The combined recirculation was increased to 75% with marked improvements

in the biological growth noted on the secondary trickling filters. City staff has made physical modifications to improve the flow metering for the secondary recirculation rate. In order to improve the plant performance in preparation of the lower summer permit limits, the recirculation rates are being evaluated for potential enhancements to improve organic treatment through the trickling filters.

(d) Longer Term Monitoring and Reporting – Completed and continuing with modified locations as approved.

12. Process Control Testing – Completed and continuing as required. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for treatment units' continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

13. Dangerous Gas Detection – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Inspection and calibration are being done routinely and repairs are made when noted upon inspection.

14. Certified Plant Operators – The City currently has six shift supervisors who are assigned in categories as follows: day, evening, night, and rotating shifts, operational maintenance, and administrative. The supervisors began continuous coverage on November 1, 2006 as scheduled. To ease the tracking of licensed employees for the facility, a table has been developed for the facility's shift supervisors, and related City management staff. The facility currently requires a PA DEP Class A-2 for the plant and an E-4 for the collection system. These dual certification requirements have been extended to appropriate plant staff as they are also responsible for the pump stations in the collection system. Shift supervisors, by virtue of their written job description, are required to pass the appropriate certification examination within twelve (12) months of hire or promotion into the position and all have done so. Most of the shift supervisors are new to the wastewater field. As a result, they are required to obtain the requisite operating experience prior to being issued their certification. During this quarter, there were no changes with shift supervisors. All shift supervisors have received the appropriate PA DEP operator certification for the current facility. The selected treatment alternative, as approved under Paragraph 18, requires an A-1 certification which is not currently required for the existing treatment plant. Most managers already possess this certification and some of the shift supervisors have studied and taken the activated sludge module in advance of the construction to be prepared for the plant's transition from trickling filters to activated sludge. Currently, two shift supervisors have this certification, two have passed the examination required for activated sludge and await the new plant to obtain the experience for the certification, and two have yet to pass the activated sludge examination module. The operator certification has been impacted partially as a result of the budget issues. State certification testing which has been done by third parties recently has been suspended for several months with no new examination dates scheduled. Wastewater has been impacted more than water since continuing education class approvals for wastewater only is not occurring

and wastewater license upgrades are not being processed as in the past. Additionally, the City has been discussing flexibility with the certification wording with AFSCME representing first level supervisors so that changes in technology or certification requirements do not require additional negotiations.

Employee	Title	PA DEP Certification
Charles M. Jones, P. E.	Director of Public Works	A,E – 1,2,3,4
Deborah A. S. Hoag, P. E.	Utilities Division Manager	A,E – 1,2,3,4
Ralph E. Johnson	Wastewater Superintendent	A,E – 1,2,3,4
Roger D. Hillibush	Operations Supervisor	A,E – 1,2,3,4
Russell L. Stoudt	Maintenance Supervisor	A,E – 1,2,3,4
John G. Gerberich	Electrical Supervisor	A,E – 2,4
Jackie C. Hendricks	Environmental Program Coordinator	A,E – 2,3,4
Amy L. Morriss	Laboratory Supervisor	A,E – 1,2,3,4
John P. Farrier	Systems Superintendent	E – 4
Gregory R. Fetter	Shift Supervisor – Operational Maintenance	A,E – 1,2,3,4
Robert E. Gensemer	Shift Supervisor - Administrative	A,E – 2,4 Passed 1,3
George E. Fultz, II	Shift Supervisor – Day	A,E – 2,4
Felix V. Stacherski	Shift Supervisor – Evening	A,E – 2,4
Daniel J. Dixon	Shift Supervisor – Night	A,E – 2,4 Passed 1,3
Roger R. Spitler	Shift Supervisor – Rotating	A,E – 1,2,3,4

As discussed in the March 21, 2006 meeting (and the July 10, 2006 telephone conference), the new supervisory employees do not have specific wastewater experience prior to their hire but are required to pass the certification exam within twelve months of hire. PA DEP certification experience and training requirements do not allow the issuance of the operator certification based solely on the passing of the examination. The City suggested changing from “individual shall be required to *obtain certification* within 12 months of the date of hire” to “individual shall be required to *pass the certification examination* within 12 months of the date of hire.” The City received a letter dated June 16, 2009 from PA DEP concurring with the language amendment. This change should be reflected in any future amendments that occur.

15. Operations and Maintenance Plan - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. Progress continues with future planned activities as discussed in the submitted plan. In the assessment of key processes, the City took action to eliminate bottlenecks and vulnerabilities to improve the performance of the existing plant. This was done as a necessary step to ensure regulatory permit compliance until the construction and start-up of the new facilities. These are the interim improvements required in the Capital Improvements Plan. The City continues to make additional improvements beyond the initial assessments as part of the continual reevaluation and optimization of plant operations. The City will be updating this plan for internal use as many of the long-standing problem areas have been addressed. The City’s preparations for the reduced summer permit limits that are effective in May involved identifying key process areas and planning how to physically make

the improvements. The trickling filter recirculation was identified and plans for increasing the primary and secondary recirculation rates were developed. Reduction of the filtrate strength is being investigated with a plan to experiment with a portion of the recycle stream to determine the impact of the proposed treatment method. Equalization of recycle waste strength was a key area identified in prior years to improve the reliability and consistent treatment in order to achieve permit compliance during the summer limit season with lower temperatures. During the fourth quarter, the overall plan was determined for converting a secondary digester holding tank to an equalization tank. The final layout including materials and equipment requirements was developed. Most of the equipment was ordered and received, and the operations and maintenance teams are working together to coordinate the project's construction and implementation. During the first quarter, difficulties were encountered in the emptying and dewatering of the tank to be used for the equalization. Staff continues to work on this with the goal to have the construction complete and tank in use in time for 2010's change to summer permit limits.

16. Staffing Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 30, 2005.

17. Interim Wet Weather Operational Strategy - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 7, 2006. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – Completed. See below.

(a) Existing Plant Process Evaluation Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the validity of the evaluation presented. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(b) Evaluation of Treatment Alternatives Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006 and formal presentation of the report and findings conducted at March 21st meeting. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance. At the May 26, 2009 meeting, the City requested the ability to have the regulators re-consider the biosolids handling alternatives and selection based upon changes in the regulatory, environmental, and economic climate in the past few years. The revised information B&V originally prepared for the City's review and consideration was submitted to US DoJ, US EPA, and PA DEP on June 30, 2009 for review and consideration. In the November 23, 2009 correspondence from PA DEP, there were no negative comments regarding the biosolids revision and the agency supported the selection of

ultraviolet disinfection and relocation and construction of a new outfall. No formal comments have been received to date from US DoJ and US EPA on the additional information submitted.

19. Capital Improvements Plan – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 16, 2007. Preliminary costs for biological treatment and solids handling facilities were developed as part of the plant and treatment alternatives report. Common facilities including headworks facilities, clarification, disinfection, and discharge are planned that were not required for the treatment alternative report. B&V prepared alternatives and cost estimates for wastewater routing between the 6th and Canal area and the WWTP as well as plant and pump station improvements required as a result. This was presented to City Council for their consideration and decision. Following their direction, B&V resumed the design of the WWTP headworks and influent pumping station as well as beginning the tunnel design from the 6th and Canal area to the WWTP. The team worked to get the headworks design on the same schedule as the remainder of the WWTP for design and construction as it is a critical element to be included in that bid package. A Notice to Proceed for the tunnel and influent pump station design was issued to B&V to minimize the schedule impacts while the formal contract amendment was developed and reviewed prior to execution. During the fourth quarter, additional geotechnical investigation was ongoing along the proposed tunnel route. Additional details are included in the B&V report summary that follows. Pursuant to informal discussions with US DoJ, US EPA, and PA DEP with regard to submitting an amended report, the City believes this will conclude the current WWTP is able to be rehabilitated in conformity with other options provided to the City in the Consent Decree. Therefore, the City has suspended further design work and cost analysis of the proposed new WWTP and conveyance design.

In the assessment of key processes for the Operations and Maintenance Plan, the City took action to eliminate bottlenecks and vulnerabilities as well as to evaluate and make cost-effective interim upgrades for performance improvements to the existing plant. This was previously submitted as part of the Operations and Maintenance Plan required by Paragraph 15. The continual reevaluation and optimization of the existing plant operations is ongoing with current update information noted above in Paragraph 15.

20. Request for Proposals – Completed. The City issued a request for qualifications (RFQ) for the implementation of the selected treatment alternative to identify design firms to be invited to submit a proposal in response to the City's request for proposals (RFP). City Council awarded the \$12,954,355 contract to Black & Veatch on March 24, 2008. The final contract was executed on June 23, 2008 with a retroactive effective date of March 25, 2008. A summary of the progress reports received from B&V for the WWTP design performed this quarter is attached.

The City requested proposals for WWTP upgrades project management (PM) and construction management (CM). City Council awarded the \$7,825,075 contract for both PM and CM to the team of Hill International/Weston Solutions/Hazen and Sawyer (HWH&S) on September 8, 2008. The final contract was executed

on November 11, 2008 with a retroactive effective date of September 9, 2008. A summary of the progress reports received from HWH&S for the WWTP PM/CM tasks performed this quarter is attached.

21. Permit Applications and Design –Ongoing. A permitting coordination meeting was conducted on June 30th with the following regulatory agencies represented: PA DEP, US Army Corps of Engineers, Delaware River Basin Commission, and Berks County Conservation District (BCCD). Of note, the BCCD does not exist as is had and has been reorganized. During this transitional time, during this time there have been numerous issues with how this project will be handled for review, permitting, and inspection.

An internal City permitting coordination meeting to introduce details of the project to City planning, zoning, building, and code officials occurred on July 7, 2009 in an attempt to expedite the internal approvals process. They have indicated when they want to be updated and what level of design drawings they will be reviewing.

B&V has developed numerous permitting scenarios based upon the various components for the project as a whole and the manner in which different regulators and permitting bodies will review the plans.

As discussed and requested at the May 26, 2009 meeting, the June 30, 2009 submittal included an updated design and construction schedule for review and consideration. A July 15, 2009 submittal provided the requested additional information regarding the construction management aspect of the project.

22. Permitting – Not applicable.

23. Construction Completion – No progress.

24. Start-Up and Operation – No progress.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. With the assistance of City sewer team personnel, ATS Chester began field data collection in July, 2006. The initial phase for field data collection is the sanitary interceptors and force mains with phase two being the remaining sanitary structures. The GIS mapping follows each phase's data collection with submission to the City for review and approval. Following schedule and data quality issues with ATS Chester, the City's legal counsel was able to reach an amenable agreement which requires the City to begin fresh and not rely on any ATS Chester data in our possession. The City discussed the impact of this contract on the Consent Decree deadlines in the May 26, 2009 meeting with the US DoJ, US EPA, and PA DEP. Following an expedited RFQ/RFP review process for interview and selection, City Council awarded a contract to Woolpert on August 24, 2009. During the fourth quarter, a project kickoff meeting was conducted to allow for the database structure and setup to occur in

advance of the contract execution. Contract details are still being negotiated with the contract yet to be signed. A Notice to Proceed will be issued immediately upon contract execution. The anticipated schedule was included in the June 30, 2009 submittal for review and consideration. This schedule anticipated no issues with contractual language between the parties. The timeline for completion was based upon the Notice to Proceed date. Woolpert has proposed performing a pilot phase with one crew to refine any system and database issues prior to beginning phase one. Much of this pilot area is included in phase one. This approach should preserve both data quality and schedule once multiple crews are working on the project.

(c) GIS Mapping of the Storm Water Collection System - In progress. The third phase for field data collection and GIS mapping is the storm water system. This is included in the new GPS contract discussed above.

26. Sanitary Sewer System Evaluation Program

(a) I/I Analysis by Subsystem

During this quarter, B&V and the City continued discussing the scheduling and coordination for the collection system investigative, mapping, modeling, and rehabilitative work.

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction have been completed by B&V for the I&I analysis. A draft report was submitted to the City for review and comment. Limited reliable data was available for the existing system and tributary populations. Draft prioritization of areas and predictions for peak flows were developed; however, data is being refined as new information is received. The hydraulic modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. Upon the receipt of a final data delivery from the prior GPS consultant on December 24, 2007, B&V set up and began calibrating the model. The data received still contained numerous apparent inaccuracies including incorrect pipe diameters which negatively impacts the hydraulic modeling. A detailed review of the data received was done to determine the extent of problems to be expected during the detailed hydraulic modeling. A test run of the hydraulic model with this data yielded 2700 errors which keep the model from running. In addition, there were 1800 warnings and 8800 information messages. This preliminary model run with the GPS data confirmed the concerns about the data quality. *The*

City has concerns about the schedule for completing the modeling based upon the ongoing issues with the quality of data received from the GPS field verification. This task is dependent upon the GIS mapping discussed above. The hydraulic modeling requirements were discussed explicitly in the GPS pre-proposal conference with the phases of work to expedite the areas necessary for the hydraulic modeling.

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The City worked with B&V to develop a manhole numbering system for the sanitary sewer system. A preliminary assignment of identifiers was made to manholes indicated on available historical mapping. The numbering system will be refined as the GPS field inventory is conducted and the City is able to resolve discrepancies found between record drawings and the actual infrastructure in the field. Although not explicitly required within the Consent Decree, the City has engaged B&V to develop a maintenance, operation and management (MOM) plan for the collection system in order to help set priorities and standardize operations of City sewer crews. The MOM plan is intended to serve as a guide for the execution of the required SSES as well as ongoing future maintenance of the collection system. B&V has provided draft technical specifications for additional system evaluation to be conducted in accordance with the I&I report recommendations. The smoke testing contract was awarded by City Council on September 22, 2008. Due to the time preparing and executing final contract documents, work was unable to be initiated prior to the freezing of the ground. Smoke testing began this quarter with a kickoff meeting on August 6, 2009 and field work beginning August 24, 2009. A measured total of 625,142 lineal feet were smoke tested of the 715,546 lineal feet anticipated in the subareas being investigated for inflow. The smoke testing as well as other field investigative work is weather dependent. Since that has been completed, there are various types of follow-up tasks being completed by both the City and the contractor including: manhole verification for missing and additional manhole locations, dyed water tracing for suspected sources, and data compilation and organization for final reporting. During the first quarter, the contractor has been working to compile the data obtained, and the City has been working to research discrepancies with asset location. The information will be shared so the final report contains the asset information to be used by future contractors and minimize confusion of multiple identifiers for the same asset.

27. Rehabilitation Plan – No progress. *The SSES is required to commence by May 7, 2008 while the dependent rehabilitation plan is due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 7, 2007. Response received from US DoJ and EPA on

May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-compliance for a given parameter for two consecutive quarters. As penalty escalation had not been detailed in the ERP, the City has documented the process and amounts as a reference tool.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress. The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. The City continues issuing penalties for compliance issues that were not fined previously such as pH, late reports, late sampling, and late permit applications. These are subject to the same escalation schedule as any other parameters.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the municipalities with permitted industries have adopted the ordinance. US EPA provided the status from the 2005 audit listing the municipalities requiring ordinance adoption. This has been discussed with solicitors and directly with individual municipalities in question. Electronic versions of the City's sewer use ordinance have been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. This is being re-evaluated as the inter-municipal agreements are being discussed. Additional language pointedly addressing this issue is included in the proposed inter-municipal agreements.

35. Non-Residential Connection Evaluation and Investigation – In progress. The City has been working with the contributing municipalities to obtain information in order to send a survey to evaluate nonresidential users that may be subject to the pretreatment program. This has been requested among other submissions from individual municipalities. This was also discussed with the municipal meetings conducted in 2007 and municipal field meetings conducted in 2008. The City continues to have difficulty obtaining this information both internally from the utility billing software and from some of the contributing municipalities. Internally, we are working with IT to have a summary report generated with the information in a usable format. This same information is critical to the water utility so cooperation with them is important. Upon obtaining the contact and usage information needed, we will be requesting assistance from a

consultant or temporary direct hire due to the large number of surveys and inspections required.

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns. The City will be evaluating options to complete addressing the noted concerns due to timing. The technical specifications for an RFP are under development, and the City has begun investigating the use of temporary experienced direct hires to accomplish these tasks.

39. Quarterly SNC Reports to US EPA – In progress.

F. Funding

40. Funding – In progress. The 2010 budget was prepared and approved with the budgeted transfer amount remaining at \$3,000,000.

During 2009, the City's general fund temporarily borrowed an additional \$11,000,000 to maintain municipal operations due to the general fiscal condition of the City. The impact of the economic downturn has been severe on the general fund with the both the amount and timing of taxes and receipts being additional contributing factors. The repayment of these funds to the sewer fund is expected to begin in 2010 to make the sewer fund whole. The City has petitioned the state and been accepted into the Act 47 financial recovery process. The draft financial recovery plan is anticipated early in the second quarter and will address the overall financial condition of the City's general fund.

IX. CIVIL PENALTY

47. and 49. Penalty Amount and Payment Instructions – Completed.

X. SUPPLEMENTAL ENVIRONMENTAL PROJECTS: Angelica Stream Restoration

52. Details of SEPs listed below

- a) **Background** - Not applicable.
- b) **Goals of SEPs** - Not applicable.

- c) **Removal of excess sediment and soil stabilization SEP** – Completed.
- d) **Angelica Creek Restoration SEP** – Completed.
- e) **Angelica Creek Riparian Buffer SEP** – Completed.
- f) **Wetland Creation SEP** – Completed.
- g) **Flood plain Meadow SEP** – Completed.
- h) **Annual Maintenance and Access to SEPs** – Ongoing. Seasonal maintenance and mowing has begun.
- i) **Design Costs and Final Plan** – Completed.
- j) **Defendant Certification** – Not applicable.
- k) **SEP Completion Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on January 30, 2008 as part of the 4th calendar quarterly progress report.

The Angelica Environmental Park ribbon cutting ceremony was held on July 28, 2008.

Additional Items related to Consent Decree

Personnel

Operator Certification – In 2005, the City administration supported management in both water and wastewater during AFSCME contract negotiations. Personnel in certain rank and file positions are given 24 months in which to pass the appropriate certification exams. New hires or transfers into operations are advised of the certification need initially and given materials to read and review as part of their orientation and training. The positions requiring certification are Fritz Island Operator (Plant Operator), Pump Tender, and Belt Filter Press Operator (Solids Operator). The first two positions each have four people to provide continual coverage while the last position currently has two people providing two shifts weekdays and weekend coverage as needed. The current AFSCME contract allows some additional flexibility related to uncontrollable changes in certification requirements due to process changes or regulatory changes.

Currently, some employees are being affected by PA DEP's 2009-2010 budget year reduction in funding for wastewater certification programs and support. The employees are eligible for certification upgrades currently which are pending due to lack of program funding. The following table shows the updated certification status of the rank and file employees in the positions requiring certification.

Position	PA DEP Certification
Plant Operator - Day	A,E – 2,4
Plant Operator - Evening	A,E – 2,4
Plant Operator - Night	E - 4 Passed exam A – 2
Plant Operator - Rotating	A,E – 2,4
Pump Tender – Day	A,E - 2,4
Pump Tender - Evening	A,E - 2,4
Pump Tender - Night	A,E - 2,4
Pump Tender – Rotating	Position open for bidding process
Solids Operator - Day	Due 06/16/2010
Solids Operator - Evening	Due 01/04/2012

The City also has certified employees in positions not requiring certification. This is being reported as it is beneficial to the City to have certified personnel in a variety of positions who understand how their actions impact the WWTP as a whole. There is increasing interest in obtaining certification by employees not in positions where it is a requirement.

Position	PA DEP Certification
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Maintenance Worker	Passed exam E - 4
WWTP Service Utility	E - 4
System Equipment Operator 2	E - 4

Additional WWTP Upgrades –

Although not specifically discussed in the Consent Decree, the following upgrades are being included in the WWTP upgrades for technical and operational necessity of the required improvements.

New WWTP Outfall – During the first quarter of 2009, the City realized the need for a new outfall as B&V had done additional investigation on the current outfall pipe compared to the design flows for the WWTP upgrades. B&V has contacted PA DEP regarding the design constraints for this to be included in the WWTP upgrades. This will require additional permitting and coordination as the outfall is currently submerged below the Schuylkill River and proposed to remain that way. The update on this progress will be included in the B&V summary as it is included in the WWTP design contract.

Operations and Maintenance

Computerized Maintenance Management System (CMMS) for Collection System– To adequately perform and document an ongoing infiltration and inflow program, catalog televisual inspection, and track service calls and repairs in the collection system, the City determined the need for a formal method to catalog the information. Geographical documentation of this information was selected as the preferred method for the database structure. The City has a static database of City information Woolpert has prepared for testing and training purposes. WWTP staff is unable to examine this database due to the communication speed between the WWTP and City Hall where the server housing the database is located. Woolpert made modifications to incorporate the existing work order format, priority, and assignment. Recurring safety and administrative functions are being incorporated into the existing CMMS and will be migrated into this software. Ultimately, this software is planned to be used in much of the Public Works Department.

A faster communication speed to City Hall servers is required to run the software efficiently as viewing the static database is near impossible with our communication system. The City's Information Technology (IT) division of the Finance department is now involved in attempting to address the communication speed problem. During the fourth quarter, IT and Finance returned to the concept of using wireless communication and involved the Law department with the use of a abandoned water tower for components. While the legal and technical hurdles were addressed, the contractor was authorized to purchase the equipment required. The contractor has received the equipment and began the installation during the first quarter. Once this is complete and the communication speed is adequate, the CMMS project can be restarted.

42" Force Main and WWTP Influent Routing –This conveyance is impacted by the hydraulics with the WWTP design and has been reviewed by the City and the PM/CM team. Due to the WWTP upgrades impact on hydraulics and the collection system in this area, this must be addressed to not impact the design and construction schedule for the WWTP. This topic was discussed with City Council on several occasions as well as a public meeting conducted on May 27, 2009. On June 8, 2009,

Council voted to authorize and direct B&V to incorporate the tunnel option into the WWTP design. Preliminary engineering and planning for additional geotechnical investigation continued with a formal Notice to Proceed issued on September 28, 2009 while the contract amendment was being negotiated between B&V and the City. The design update is included in the B&V update.

Laboratory and Administration

Land and Building – The City purchased a parcel of land in 2005 adjacent to the wastewater treatment plant to be used for the construction of a new building for the administration, laboratory, and collection system. The City purchased a second adjacent parcel in March 2007. The City intends to construct a LEED-certified, ‘green’ building and an access bridge across the Mifflin Arm of the Schuylkill River to the WWTP. On February 23, 2009 City Council awarded the civil engineering services contract to Herbert, Rowland & Grubic (HRG) and the architectural services contract to Seiler + Drury (S+D). The project has been separated into phases with the building and the bridge connecting to the WWTP as separate phases to expedite the PC review and approval. Conditional final plan approval for phase one was received at the September 14th PC meeting with the Township Commissioners approving the project at their September 15th meeting. The individual firms’ detailed summary of work for the quarter follows. During the first quarter, the demolition contract for the existing homes and structures was executed. Also, the final permitting approval was received in preparation for the plan recording. A municipal improvements agreement with the Township remains as the final item to be addressed prior to recording.

Administrative

Contributing Municipalities - The City and B&V met individually with the municipalities that contribute flows to the City’s wastewater system and plant to provide background information and the City’s current status including technical information related to the Consent Decree requirements. Also, the City wanted to obtain current status of flow projections and I&I reduction efforts. Some municipalities and authorities had their own staff or officials in addition to the appropriate engineers. In addition to the Consent Decree requirements for plant upgrades and system projects, the need for municipal adoption of the City’s sewer use ordinance was discussed as well as the need for ongoing communication regarding non-residential customers both being related to the industrial pretreatment program. Finally, the process to be followed when planning for new development and the use of PA DEP planning modules were discussed as well.

Field meetings were conducted in the spring and summer of 2008 to inspect each connection point, metering location, and terminal pumping stations to the City system as well as available mapping for the system. This information is being used to develop more accurate service area mapping by connection point. Follow-up meetings have been conducted to view interconnection points between contributing municipalities and additional information requests have been made based upon the findings of each meeting.

The City solicited proposals from legal firms to assist in the evaluation of the existing Intermunicipal agreements (IMAs) and the renegotiation of new IMAs. Proposals

were received on May 27, 2009 with review, interviews, and selection expedited prior to the June 8, 2009 Council award of contract. Fox Rothschild reviewed the City's existing IMAs and other wastewater IMAs, met with the City's committee, drafted revised and reorganized IMAs for review, and met informally with larger bulk municipal customers. The new IMAs have been presented to the municipalities to begin discussions. Questions and requests for information from the municipalities are being handled as they are received. We understand from counsel that they have experienced some resistance and lack of cooperation from municipalities. We will keep US DoJ abreast of these developments and may be required to ask for assistance if these negotiations begin to impede the City's progress.

Funding - Some key aspects of funding clarification were added to the RFP for the WWTP PM team discussed above in paragraph 20. Grant funding is included in the PM/CM update that follows. The City learned on July 13, 2009 that they were awarded a \$5 million grant in the first round of H2O PA grants. Research was conducted to determine the action required for release of \$500,000 in the form of a US EPA STAG grant designated for the City in the 2009 federal budget. It appears the City has received a 2010 US EPA STAG grant in addition to the same amount in 2009. Meetings were conducted with various agencies regarding financing the capital improvements. These tasks were done by the PM team and are included in their report.

Financing – The City and its support team has been working to determine the rate impact on the users based upon the financing required for the projects. The needs for going to the bond market are being reviewed and prepared. From the technical aspect, an engineer's report is required to obtain the revenue bonds. During this quarter, B&V was retained to perform an affordability analysis as well as confirm the revenue streams and their projected stability as part of a phased approach to evaluate the City's rate structure and the financial impact of the capital financing on the existing rate payers. Per the B&V affordability report provided for review by Keith Mooney, the City is not able to afford the WWTP capital upgrades as being designed per the approvals received for paragraphs 18 and 19. This situation is especially critical as the City has entered in to the state's Act 47 program based upon the City's overall financial condition.

Response Times and Clarifications – The City continues to work in good faith on compliance issues outlined within the Consent Decree. There is concern regarding delays in regulatory responses for questions posed during meetings or within progress reports. As investigative field work in the collection system intensifies, previously identified concerns regarding timeline discrepancies within the Consent Decree become more evident. Clarification is critical to allow the City to balance the allocation of human and financial resources in efforts to maintain compliance.

PA DEP Meetings – B&V has been in telephone contact with PA DEP on several permitting issues relative to the WWTP design.

NPDES Permits and Limits – A May 28, 2009 NPDES draft permit was received from PA DEP for the permit which expired on May 1, 2006. The City reviewed the draft limits and began preparing a comment letter to discuss the permit changes as well as the requested information to be incorporated. As discussed in a May 2008 meeting with the permit writer, the final NPDES Part I discharge permit is not

anticipated to be released prior to the Part II construction permit per the PA DEP policy when improvements are being planned for a facility. A May 28, 2009 draft permit was received for review and comment. The City issued a comment letter and met with the permit writer to prepare for the final discharge permit issuance. Another draft permit was received electronically on December 3, 2009 and the City is in the process of reviewing and commenting on the draft received. There are concerns about the timing of the capital improvements and the manner they are included in this draft permit.

VI. REPORTING REQUIREMENTS

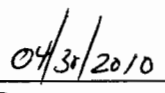
41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.



Deborah A.S. Hoag, P.E.
Utilities Division Manager



Date

Black & Veatch Wastewater Utility Financial Analysis First Quarter 2010 Summary

B&V was engaged in late December 2009 to evaluate the affordability of the capital improvement program required under the Consent Decree, along with on-going capital and operating requirements of the Sewer Utility.

Under this project, the following tasks were worked on during the reporting period:

- December 23, 2009 – Consulting Agreement approved by B&V and City; Agreement signed by B&V and sent to City for signature.
- December 23, 2009 – January 13, 2010 – B&V conducted data analysis and began analysis of revenue and revenue requirements
- January 13-14, 2010 – Project kickoff meeting at City offices; discussions included project overview and data needs
- January 14-28, 2010 – Continuation of development of analysis.
- January 28-29, 2010 – Follow-up meeting at City offices to discuss status and address remaining data needs
- January 30-February 16, 2010 – Completion of Affordability Analysis and PowerPoint presentation of results.
- February 17, 2010 – Conducted a web-cast with City staff and PM/CM representatives to discuss assumptions and preliminary results of affordability analysis
- February 19, 2010 – Conducted a formal workshop to present results of the Affordability Analysis. Attendees included B&V representatives, Mayor, City Staff, and others
- March 8, 2010 – Delivered final report of Affordability Analysis to City's Managing Director
- March 9, 2010 – Presented proposal to provide a Comprehensive Rate Study for the Sewer Utility

Black & Veatch WWTP Design Engineering Progress Report First Quarter 2010 Summary

Project Management

- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Continued to provide support for development of contract for rate study and bond feasibility study.
- Continued working with the City in review of amendment items.
- Provided additional information to the City on hazardous site assessment examples.
- Reviewed project design and permitting schedules
- As requested by the City, continued support with affordability analysis in absence of financial planning guidance from PM/CM team.
- As requested by the City, continued to provide support for development of contract for rate study and bond feasibility study.
- Continued working with the City in review of amendment items based on items added to the design through the value engineering process conducted by the PM/CM.
- Reviewed project design and permitting schedules
- Attended project planning meeting based on the results of the affordability study initiated by the City in January 2010.
- As requested by the City, continued support with affordability analysis in absence of financial planning guidance from PM/CM team.
- As requested by the City, continued to provide support for development of contract for rate study and bond feasibility study.
- Reviewed project design and permitting schedules
- Coordinated with subconsultants to closeout invoicing and project activities.
- Performed administrative tasks including invoicing and project documentation.

Design

- Continuation of Level 3 design and submittal preparation.
- Submittal of Level 3 documents (January 21st)
- Development of Division 1 Specifications
- Development of Level 3 Cost Opinion
- Review of City requested spare parts and developed cost estimate
- Performed internal QA/QC of design documents
- Initiated edits to Level 3 documents based on internal QA/QC comments
- Working with Geotechnical subconsultant to finalize geotechnical report
- Review and coordination of equipment installations for City visits
- Provided input on City inquiries on chemical storage tanks.
- Responded to City inquiries regarding scum flushing system
- Provided information and background data on pump hoists
- Provided responses to comment matrix for Level 2 design

- Provided digester cleaning spec to City for review and comment
- Continued work on Front End Documents and Division 1 Specifications
- Provided Level 3 Cost Opinion
- Provided City requested spare parts including cost estimate
- Performed internal QA/QC of design documents
- Continued edits to Level 3 documents based on internal QA/QC comments
- Conducted Level 3 Workshops (Feb 16, 17, 18)
- Organized data for filing based on City direction to suspend design work.
- Created documentation of project status and comments received during Level 3 workshop.
- Distributed meeting minutes from Level 3 workshop as requested.

Permitting

- Continued work with regulators on requirements for stormwater permitting
- Continued coordination with BCCD for permit application submittal.
- Continued to work with City on DRBC application
- Continued work identifying mitigation plan requirements for red bellied turtle
- Work on land development permit requirements
- Continued review of tunnel permitting requirements with PADEP, BCCD, and ACOE.
- Requested status updates from City on permit application fee check requests.
- Coordinated permitting requirements with PM/CM for PENNVEST application
- Continued coordination with BCCD for permit application submittal.
- Continued to work with City on DRBC application
- Continued work identifying mitigation plan requirements for red bellied turtle
- Work on land development permit requirements
- Continued review of tunnel permitting requirements with PADEP, BCCD, and ACOE.
- Requested status updates from City on permit application fee check requests.
- Coordinated permitting requirements with PM/CM for PENNVEST application

Site Investigations

- Continued coordination with BIA on surveying efforts.
- Continued coordination with Lab admin building and firing range.
- Continued coordination with BIA on surveying efforts.
- Invoice includes subconsultant invoices for services provided.

Geotechnical Services

- Continued review of comments on Geotechnical Data Report being utilized for design.
- Continued review of comments on Geotechnical Data Report being utilized for design.
- Worked with Geotechnical subconsultant to finalize geotechnical report
- Invoice includes subconsultant invoices for services provided.

Tunnel / Influent Pump Station Design

- Reviewing local sewer connections requirements for connection to tunnel.
- Continued work on design of influent pump station.
- Continued design efforts and planning
- Planning for surface connections and drop structure designs
- Contact with property owners for boring program
- Met with Habisat to discuss boring program
- Identified contamination at 6th and Canal during boring program. Notified the City of findings, took samples to local lab, performed general environmental database search to identify potential sources of contamination, recommend to the City that they schedule follow-up investigations and notify the PADEP.
- On site coordination of field activities for borings.
- Discuss of permitting requirements with regulators
- IPS layout conceptual design
- Contacted pump manufacturers and vendors for review of IPS
- Coordination with tunnel and IPS design activities
- Review of technical memorandums for wet well access and depth / diameter optimization with the City.
- Received PM/CM comments on TM 16.
- Continued geotechnical investigation program for the tunnel alignment,
- Reviewing local sewer connections requirements for connection to tunnel.
- Continued work on design of influent pump station.
- Continued to inform City that reporting and investigation is required for the contamination at 6th and Canal during boring program. Sample results and applicable data were provided to the City.
- Discuss of permitting requirements with regulators
- Coordination with tunnel and IPS design activities
- Developed responses to City and PM/CM comments on the technical memoranda developed for the IPS design.
- Continued to work with geotechnical subconsultant to plan and schedule boring and testing requirements for the tunnel design.
- Continued development of Level 1 documents for scheduled submittal in February until City requested design work be suspended for the IPS and Tunnel designs.
- Organized data for filing based on City direction to suspend design work.
- Invoice includes subconsultant invoices for services provided.
- As requested by the City, provided latest tunnel alignment information to UGI.
- Invoice includes subconsultant invoices for services provided.
- Invoice includes approximately \$47,167 of outstanding subconsultant invoices.
- As requested by the City, continued coordination of planning for final testing and close out of open borings along the tunnel alignment. Work to be performed in May 2010.
- Coordinated with Driller to move trailer to facilitate firing range project.

Project Shutdown

- Based on directive from City to stop work, coordinated project closeout activities.

Consulting on Next Steps

- As requested by the City, developed prioritization of capital projects to utilize elements of the current design (currently at the 90% Level) allowing elements to be phased in over time to meet goals of addressing vulnerabilities, utilizing investment made in current design, addressing long term goals (anticipated permit limits), and addressing the intent of consent decree and approved alternatives report in light of the City's financial status.
- As requested by the City, attended meeting with Mayor and Managing Director.
- As requested by the City, attended Council meeting.
- As requested by the City, attended a project team meeting on March 11, 2010 to discuss the prioritization options for capital elements of the project.
- Worked with WWTP staff to address process questions.

Hill International/Weston Solutions/Hazen & Sawyer
WWTP Upgrades PM/CM
First Quarter 2010 Progress Report

Project Management (Hill):

- Performed required administrative functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination.
- Participated in several client coordination meetings: design updates, operational update (with Environmental Division Manager), funding coordination meetings (with the City's finance representative), City Council meetings, and City Manager briefs.
- Participated in several internal coordination meetings with PM/CM team as well as other contracted team members (i.e. Legal/Inter-Municipal Agreement review).
- Reviewed and published updated project and cash flow schedules.
- Performed Level 3 Workshop coordination.
- Provided PLA coordination review.
- Reviewed the grant funding and financial analysis deliverables.
- Reviewed potential cost savings options.
- Reviewed requirements for bond issues.
- Performed permitting status review and reviewed impacts.
- Reviewed WWTP electrical load analysis.
- Researched affordability redesign options.
- Reviewed public affairs plan
- Performed required administrative functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination.
- Prepared for and attended affordability assessment meeting.
- Reviewed Capital Improvement Plan and Project Master Schedule.
- Reviewed Tunnel/IPS Suspension correspondence and provided comments on impacts.
- Reviewed Funding Matrix.
- Prepared for City Manager brief; developed meeting minutes and correspondence.
- Updated Contingency Draw Schedule.
- Provided reviews of grant funding and B&V Level 3 Cost Opinion.
- Revised system costs and checkbook analysis.
- Attended Level 3 Cost Opinion workshop.
- Attended B&V affordability pre-brief.
- Participated in site visit with Verizon and Burkey representatives.
- Provided review of designed suspension letter.
- Prepared PM/CM Affordability Analysis Assessment draft.
- Briefed mayor and City Manager on current status of project.

- Performed required administrative functions: meeting coordination, project correspondence, invoice preparation, subcontractor and client scheduling coordination.
- Participated in teleconferences and meetings with City officials and PM/CM team.
- Reviewed Project Documents (Consent Decree, Alternatives Treatment Report).
- Prepared conceptual Capital Improvement Plan and draft Master Timeline.
- Updated project critical drivers/issues/action items.
- Finalized and published PM/CM Affordability Assessment & Recommendations.
- Reviewed B&V Financial Scope of Services.
- Participated in Financial Assessment Tasks with respective PM/CM teammates (Grant Funding, Financial Analysis).

Project Controls (Hill):

- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted documents for project team.
- Updated and published executive level master project and cash flow schedules.
- Prepared projected cash flow spreadsheet
- Prepared Capital Improvement Plan options flowchart
- Performed Level 2 to Level 3 cost comparison.
- Prepared invoice for submission.
- Prepared projected cash flow spreadsheet.
- Prepared Capital Improvement Plan Power Point presentation.
- Updated conceptual Capital Improvement Plan and draft Master Timeline.
- Performed required administrative functions: invoice preparation, Industry Day catering invoice resolution, invoice tracking log.
- Updated Draw Schedule.
- Updated project critical drivers/issues/action items.

Value Engineering: N/A

Design Review/Tech Support (Hazen-Sawyer and Weston):

- Attended weekly Design Update meeting.
- Attended weekly PM/CM coordination meetings.
- Reviewed Level Three Documents.
- Reviewed Technical Memorandums 14, 15 and 16.
- Assisted in preparing Potential Cost Savings.
- Participated in site visits with the Client to OCUA and ACUA.
- Attended PM/CM coordination meetings.
- Performed Level 3 document review.
- Attended Level 3 design workshop.

- Worked technical issues in support of a Capital Improvement Plan and Consent Decree Amendment.
- Provided technical assistance regarding Act 537.
- Drafted a wastewater treatment plant project prioritization list.
- Attended a project prioritization meeting with the City and designer.

Regulatory Compliance: N/A

Grant Funding (Duane Morris: see invoice):

- Participated in several PM/CM conference calls.
- Updated funding matrix including research on 2010 STAG earmark.
- Discussed funding matrix, permitting, PennVEST, grant funding and Act 537 info with PM/CM team.
- Prepared draft of PennVEST application for base plant upgrade project.
- Explored funding status if project scope is revised.
- Participated in PM/CM conference calls.
- Updated funding matrix.
- Reviewed and prepared Part 1 of PennVEST application.
- Reviewed funding slide for presentation.
- Attended meeting in Reading to discuss affordability analysis and next steps.
- Prepared funding bullet points for presentation.
- Participated in PM/CM conference calls.
- Researched Reading's pursuit of additional H2O PA funding.
- Prepared and revised memo on H2O PA funding.
- Researched Act 537 issue.
- Researched proposed change in scope of work to Reading H2O grant.

Financial Analysis (PFM):

- Researched, updated, prepared and briefed pro-forma model.
- Reviewed W&S rating analysis for participating municipalities.
- Researched demographic and MFRA data.
- Coordinated with finance subgroup.
- Updated model and analyzed scenarios.
- Prepared for and participated in Level 3 Cost meeting.
- Participated in weekly call with PM/CM team.
- Attended meeting to discuss and update schedule.

Public Relations (Weston):

- Provided project review, participated in conference call, and developed strategy outline
- Attended meeting with City of Reading to discuss public outreach program
- Developed public outreach strategy / outline
- Participated in public relations conference call and provided coordination
- Attended meeting with City of Reading to discuss public outreach program

Surveying: N/A

Construction Management (Weston):

- Attended an internal PM/CM coordination meeting to advance the project schedule and discuss front end documents and B&V Cost Opinion.
- Attend project team meeting conference call.
- Attended PM/CM meeting and Level 3 conference calls
- Reviewed and commented on PM/CM response to permit status
- Attended project affordability meeting.
- Attended Level 3 Cost workshop.
- Performed Level 3 Cost review.
- Met with Verizon and Burkey Construction onsite to discuss new plant, temporary utilities and utility service to the firing range.

Resident Engineer: N/A

Inspection: N/A

Health and Safety: N/A

Start-up: N/A

**Herbert, Rowland & Grubic
Utilities Building Civil Engineering Services
First Quarter 2010 Summary**

Preliminary Sketch / LEED

- Finalization of plan revisions and revisions to the Landscape Plan.

Preliminary LD Plan

- Tasks associated with recording the Final Plan
- Follow-ups with client and approving agencies.
- Coordination regarding fire suppression flows and water supply.
- Tasks associated with recording the Final Plan
- Follow-ups with client and approving agencies.

E&S / NPDES

- Finish addressing Phase 1 and Phase 2 comments from the BCCD,
- Printing, packaging and submission of the Phase 1 and Phase 2 plans to the BCCD.
- Construction plans were updated to reflect the E&S Plan changes.

Driveway HOP and Road Widening HOP

- Final checking, finalizing the response letter, package and submission to PennDOT.
- Coordination with PennDOT's Permit unit. HOP permit issued on February 2, 2010.

Bid Package

- Final revisions to the construction plan, coordination with project architect;
- Revise/update construction plan information including revisions the chain link fence and light standard details as requested.
- Provide lighting schedule and detail to project architect
- Publish the Construction Plan set and load on to the FTP site.

Bridge Design

- Preliminary design/coordination and beam design.
- Preliminary design/coordination regarding beam design, bridge geometry and bearing pad design.
- Coordination, scheduling and canceling the driller. Work stopped on the bridge project as directed.

Seiler + Drury
Utilities Building Architectural Services
First Quarter 2010 Summary

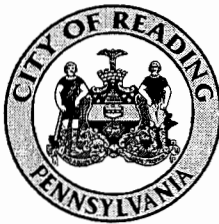
On February 27th of 2009, our office received the Notice to Proceed from the Department of Public Works authorizing our project team to begin Architectural Services towards the development of the new Public Works Utilities Building at the City of Reading's Wastewater Treatment Complex.

Architectural and engineering services during January included the following highlights:

- Continued to finalize overall project documentation in accordance with an agreed upon Value Engineering work scope per Amendment 002.
- Prepared and provided the City with final Bid Set incorporating requested Value Engineering changes.

Project Progress includes development of the following items:

- 1) Preparation of final bid set inclusive of value engineering measures.
- 2) Continued QC/QA review of completed project documentation
- 3) Continued review of final finishes and colors throughout new facility.



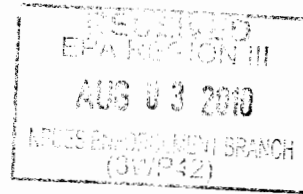
CITY OF READING, PENNSYLVANIA

PUBLIC WORKS
503 N. 6TH STREET
READING, PA 19601
(610) 655-6236

CHARLES M. JONES
PUBLIC WORKS DIRECTOR

July 29, 2010

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476



Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
2nd Quarter 2010

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6236 should you have any comments or questions.

Sincerely,

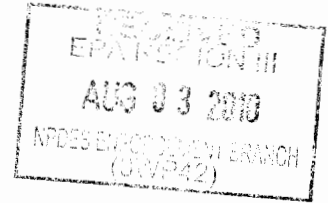
Charles M. Jones, PE
Public Works Director

CMJ/ts
Enclosure

C: Christopher A. Day, Esq., US EPA
✓ Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Carl Geffken, Interim Managing Director
Deborah A.S. Hoag, P.E., Utilities Manager
Ralph E. Johnson, Superintendent
Stephen K. Hydro, P.E., Black & Veatch
Anthony C. Vesay, P.E., Hill International
Keith Mooney, Esq., Legal Counsel
John J. Miravich, Esq., Fox Rothschild
file



**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending June 30, 2010**



V. REMEDIAL MEASURES

A. General Duties

- 7. Duty to Comply with Permit** – In progress. The City's wastewater treatment plant was in compliance with NPDES permit parameters.
- 8. Operation and Maintenance of the Facility** – In progress. The City continues to refine the management, operational and maintenance programs as appropriate.

B. Interim Measures

9. Interim Compliance – Environmental Management System

- (a) Submission** – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. The City received comments from the PA DEP dated November 23, 2009 indicating compliance and encouraging the continuation of SCADA and pretreatment improvements. *The City awaits a response from the US DoJ and US EPA for the approval of the system and its components listed below as proposed.*
 - (b) Maintenance Management System** - Continuing progress. This is routinely reviewed and updated through reminder prompts within the CMMS itself.
 - (c) Supervisory Control and Data Acquisition (SCADA) system**
 - 1. Interim SCADA System** – Completed and certified.
 - 2. Upgrades to SCADA System** – Not applicable. This will be addressed when appropriate. In the interim, the City continues to refine the existing SCADA system as appropriate.
 - (d) Pretreatment Data Management System** – Continuing progress. The City continues the use of a commercial pretreatment database as well as an abbreviated spreadsheet for verification.
- 10. Interim Plant Influent Monitoring** – Completed and the City continues to implement as appropriate.
- 11. Interim Trickling Filter Performance Measures** – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for trickling filter continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.
- (a) Performance Improvements** – The City continues to refine as appropriate.
 - (b) Unit Efficiency Monitoring Recirculation Rate** – The City continues to address this paragraph under B. 11. (d), as instructed.
 - (c) Recirculation Rate** - The City continues to refine as appropriate.
 - (d) Longer Term Monitoring and Reporting** – The City continues to use the modified locations as approved.

12. Process Control Testing – Completed and continuing implementation as required. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for treatment units' continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

13. Dangerous Gas Detection – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. The gas detection equipment is routinely checked using a check chart and calibrations are scheduled through the CMMS prompt system.

14. Certified Plant Operators – The City currently has six shift supervisors who are assigned in categories as follows: day, evening, night, and rotating shifts, operational maintenance, and administrative. The supervisors began continuous coverage on November 1, 2006 as required. The operator certification has been impacted partially as a result of the PA DEP budget issues. State certification testing which has been done by third parties recently had been suspended with no examinations scheduled for several months. Wastewater has been impacted more than water since continuing education class approvals for wastewater only was not occurring and certification upgrades are not being processed as in the past.

Employee	PA DEP Certification
Charles M. Jones, P. E.	A,E – 1,2,3,4
Deborah A. S. Hoag, P. E.	A,E – 1,2,3,4
Ralph E. Johnson	A,E – 1,2,3,4
Roger D. Hillibush	A,E – 1,2,3,4
Russell L. Stoudt	A,E – 1,2,3,4
John G. Gerberich	A,E – 2,4
Jackie C. Hendricks	A,E – 2,3,4
Amy L. Morriss	A,E – 1,2,3,4
John P. Farrier	E – 4
Gregory R. Fetter	A,E – 1,2,3,4
Robert E. Gensemer	A,E – 2,4 Passed 1,3
George E. Fultz, II	A,E – 2,4
Felix V. Stacherski	A,E – 2,4
Daniel J. Dixon	A,E – 2,4 Passed 1,3
Roger R. Spitler	A,E – 1,2,3,4

As discussed in the March 21, 2006 meeting and the July 10, 2006 telephone conference, many new supervisory employees do not have specific wastewater experience prior to their hire but are required to pass the certification exam within twelve months of hire. PA DEP certification experience and training requirements do not allow the issuance of the operator certification based solely on the passing of the examination. The City suggested changing from “individual shall be required to *obtain certification* within 12 months of the date of hire” to “individual shall be required to *pass the certification examination* within 12 months of the date of hire.” The City received a letter dated June 16, 2009 from

PA DEP concurring with the language amendment. This change should be reflected in any future amendments that occur.

15. Operations and Maintenance Plan - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. The City routinely reviews and updates this plan through reminder prompts within the CMMS.

16. Staffing Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 30, 2005. The City reorganized the Utilities Division during this second quarter of 2010 to assure we address Consent Decree requirements both comprehensively and timely.

17. Interim Wet Weather Operational Strategy - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 7, 2006. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission. This Interim Strategy is incorporated into the Wet Weather Operation Plan under paragraph 29.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006 and formal presentation of the report and findings conducted at March 21st meeting. Response received from US DoJ and EPA on May 3, 2006 approving the submission, the validity of the evaluation presented, and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance. At the May 26, 2009 meeting, the City requested the ability to have the regulators re-consider the biosolids handling alternatives and selection based upon changes in the regulatory, environmental, and economic climate in the past few years. Revised information was submitted to US DoJ, US EPA, and PA DEP on June 30, 2009 for review and consideration. In the November 23, 2009 correspondence from PA DEP, there were no negative comments regarding the biosolids revision and the agency supported the selection of ultraviolet disinfection and relocation and construction of a new outfall. No formal comments have been received to date from US DoJ and US EPA on the additional information submitted.

(a) Existing Plant Process Evaluation Report – During this second quarter of 2010 the City contracted with the team of Hill International, Hazen & Sawyer and Weston Solutions to conduct a reevaluation of the existing plant processes. The reevaluation was requested by the City for the following reasons.

1. The plant's performance and compliance has greatly improved over the past five years so the original data used to evaluate the existing plant was probably misleading.
2. The existing plant's actual performance over the past five years is exceeding the original plant's evaluation predicated capability.
3. Since the originally submitted plant evaluation appears to have under rated the existing plant, it skewed the conclusions used to justify the submitted evaluation of alternatives and capital improvements plan.

4. The actual increase in flows and loadings over the past five years and the future growth rate within the service area appear to be less than anticipated.
5. Since the original capital improvement plan's time table was prepared with increases in flows and loadings we are not experiencing, it skewed the City's implementation schedule.

(b) Evaluation of Treatment Alternatives Report – A reevaluation of treatment alternatives will be conducted pending the findings of the plant reevaluation described in paragraph C. 18. (a), above. A reevaluation of treatment alternatives will be conducted if the City's needs are different than previously concluded.

19. Capital Improvements Plan – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 16, 2007 for review and approval. Pursuant to informal discussions with US DoJ, US EPA, and PA DEP with regard to submitting an amended report, the City believes this will conclude the current WWTP is able to be rehabilitated in conformity with other options provided to the City in the Consent Decree. Therefore, the City has suspended further design work and cost analysis of the proposed new WWTP and conveyance design. The design of the initially approved alternative is approximately 90% completed. This 90% completed design will be completed, partially completed, or replaced pending the reevaluation of existing plant processes and potential reevaluation of alternatives. The City's capital improvements plan decision will be impacted if the City's needs are different than previously concluded. If appropriate, a revised capital improvements plan and schedule will be prepared immediately after a reevaluation of treatment alternatives.

20. Request for Proposals – Completed. The City issued a request for qualifications (RFQ) for the implementation of the selected treatment alternative to identify design firms to be invited to submit a proposal in response to the City's request for proposals (RFP). City Council awarded the \$12,954,355 contract to Black & Veatch on March 24, 2008. The final contract was executed on June 23, 2008 with a retroactive effective date of March 25, 2008. A summary of the progress reports received from B&V for the WWTP design performed this quarter is attached.

The City requested proposals for WWTP upgrades project management (PM) and construction management (CM). City Council awarded the \$7,825,075 contract for both PM and CM to the team of Hill International/Weston Solutions/Hazen and Sawyer (HWH&S) on September 8, 2008. The final contract was executed on November 11, 2008 with a retroactive effective date of September 9, 2008. A summary of the progress reports received from HWH&S for the WWTP PM/CM tasks performed this quarter is attached.

If appropriate the City will finish the design of select facilities under the originally approved alternative. If new or partially new plant process alternatives are selected the City will complete the design of those alternatives at that time.

21. Permit Applications and Design – Ongoing for original alternatives design which has been halted. The permitting application process will be resumed when appropriate with approved, selected treatment alternatives.

- 22. **Permitting** – Not applicable.
- 23. **Construction Completion** – No progress. This will be addressed when appropriate.
- 24. **Start-Up and Operation** – No progress. This will be addressed when appropriate.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. With the assistance of City sewer team personnel, ATS Chester began field data collection in July, 2006. The initial phase for field data collection is the sanitary interceptors and force mains with phase two being the remaining sanitary structures. Following schedule and data quality issues with ATS Chester, the City's legal counsel was able to reach an amenable agreement which requires the City to begin fresh and not rely on any ATS Chester data in our possession. The City discussed the impact of this contract on the Consent Decree deadlines in the May 26, 2009 meeting with the US DoJ, US EPA, and PA DEP. Following an expedited RFQ/RFP review process for interview and selection, City Council awarded a contract to Woolpert on August 24, 2009. The contract language was negotiated with execution by the last party completed on May 27, 2010. Woolpert will be performing a pilot phase with one crew to refine any system and database issues prior to beginning phase one. Much of this pilot area is included in phase one. This approach should preserve both data quality and schedule once multiple crews are working on the project. The database configuration is in progress.

(c) **GIS Mapping of the Storm Water Collection System** - In progress. The third phase for field data collection and GIS mapping is the storm water system. This is included in the new GPS contract discussed above.

26. Sanitary Sewer System Evaluation Program

(a) I/I Analysis by Subsystem

During this quarter, B&V and the City continued discussing the scheduling and coordination for the collection system investigative, mapping, modeling, and rehabilitative work.

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction have been completed by B&V for the I&I analysis. The hydraulic modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the

selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. Upon the receipt of a final data delivery from the prior GPS consultant on December 24, 2007, B&V set up and began calibrating the model. The data received still contained numerous apparent inaccuracies including incorrect pipe diameters which negatively impacts the hydraulic modeling. A detailed review of the data received was done to determine the extent of problems to be expected during the detailed hydraulic modeling. A test run of the hydraulic model with this data yielded 2700 errors which keep the model from running. In addition, there were 1800 warnings and 8800 information messages. This preliminary model run with the GPS data confirmed the concerns about the data quality. *The City has concerns about the schedule for completing the modeling based upon the ongoing issues with the quality of data received from the GPS field verification. This task is dependent upon the GIS mapping discussed above.* The hydraulic modeling requirements were discussed explicitly in the GPS pre-proposal conference with the phases of work to expedite the areas necessary for the hydraulic modeling. The pilot and first phase of the GPS project discussed in paragraph 25(b) provide the information required for this hydraulic modeling.

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The City worked with B&V to develop a manhole numbering system for the sanitary sewer system. A preliminary assignment of identifiers was made to manholes indicated on available historical mapping. The numbering system is being refined as the smoke testing shows additional or missing manholes and will be as the GPS field inventory. The City reviews discrepancies found between record drawings and the actual infrastructure in the field and ensures documentation is accurate. The smoke testing contract was awarded by City Council on September 22, 2008. Due to the time preparing and executing final contract documents, work was unable to be initiated prior to the freezing of the ground. Smoke testing began with a kickoff meeting on August 6, 2009 and field work beginning August 24, 2009. A measured total of 625,142 lineal feet were smoke tested of the 715,546 lineal feet anticipated in the subareas being investigated for inflow. Since that has been completed, there are various types of follow-up tasks being completed by both the City and the contractor including: manhole verification for missing and additional manhole locations, dyed water tracing for suspected sources, and data compilation and organization for final reporting. During the first and second quarters, the contractor compiled the data obtained, the City researched discrepancies with asset location, and the two parties communicated where additional information is required. The final numbering information will be shared so the summary report contains the

asset information to be used by future contractors to minimize confusion of multiple identifiers for the same asset.

27. Rehabilitation Plan – No progress. *The SSES is required to commence by May 7, 2008 while the dependent rehabilitation plan is due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 7, 2007. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-compliance for a given parameter for two consecutive quarters. As penalty escalation had not been detailed in the ERP, the City has documented the process and amounts as a reference tool.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress. The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. The City continues issuing penalties for compliance issues that were not fined previously such as pH, late reports, late sampling, and late permit applications. These are subject to the same escalation schedule as any other parameters. This quarter, a consent order was discussed with an industry having repeat violations.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the municipalities with permitted industries have adopted the ordinance. US EPA provided the status from the 2005 audit listing the municipalities requiring ordinance adoption. This has been discussed with solicitors and directly with individual municipalities in question. Electronic versions of the City's sewer use ordinance have been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. This need is included in the draft of the proposed inter-municipal agreements being discussed.

35. Non-Residential Connection Evaluation and Investigation – In progress. The City has been working with the contributing municipalities to obtain information in order to send a survey to evaluate nonresidential users that may be subject to the pretreatment program. This has been requested among other submissions from individual municipalities. The City continues to have difficulty

obtaining this information both internally from the utility billing software and from some of the contributing municipalities. Internally, IT has created a summary report with the information in a usable format. The accuracy verification of the information is more difficult. Upon obtaining the contact and usage information needed, we will be requesting assistance from a consultant or temporary direct hire due to the large number of surveys and inspections required.

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns. The City will be evaluating options to complete addressing the noted concerns due to timing. The technical specifications for an RFP are under development, and the City has begun investigating the use of temporary experienced direct hires to accomplish these tasks.

39. Quarterly SNC Reports to US EPA – In progress.

F. Funding

40. Funding – In progress. The 2010 budget was prepared and approved with the budgeted transfer amount remaining at \$3,000,000. During 2009, the City's general fund temporarily borrowed an additional \$11,500,000 to maintain municipal operations due to the general fiscal condition of the City. This temporary borrowing of \$11,500,000 was omitted in the 2009 Fourth Quarter Report. The impact of the economic downturn has been severe on the general fund with the both the amount and timing of taxes and receipts being additional contributing factors. The repayment of these funds to the sewer fund is expected to begin in 2010 to make the sewer fund whole. As of June 30, 2010, the City's general fund has repaid \$3,000,000 to the sewer fund. The City has petitioned the state and been accepted into the Act 47 financial recovery process. The draft financial recovery plan addressing the overall financial condition of the City's general fund was received and approved in the second quarter.

IX. CIVIL PENALTY

47. and 49. Penalty Amount and Payment Instructions – Completed.

X. SUPPLEMENTAL ENVIRONMENTAL PROJECTS: Angelica Stream Restoration

52. Details of SEPs listed below

- a) **Background** - Not applicable.
- b) **Goals of SEPs** - Not applicable.
- c) **Removal of excess sediment and soil stabilization SEP** – Completed.
- d) **Angelica Creek Restoration SEP** – Completed.
- e) **Angelica Creek Riparian Buffer SEP** – Completed.
- f) **Wetland Creation SEP** – Completed.
- g) **Flood plain Meadow SEP** – Completed.
- h) **Annual Maintenance and Access to SEPs** – Ongoing. Seasonal maintenance and mowing has begun.
- i) **Design Costs and Final Plan** – Completed.
- j) **Defendant Certification** – Not applicable.
- k) **SEP Completion Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on January 30, 2008 as part of the 4th calendar quarterly progress report.

The Angelica Environmental Park ribbon cutting ceremony was held on July 28, 2008.

Additional Items related to Consent Decree

Personnel

Operator Certification –The positions requiring certification are Plant Operator, Pump Tender, and Solids Operator.

Currently, some employees are being affected by PA DEP's reduction in funding for wastewater certification programs and support. The employees are unable to take the certification examinations as they are not offered or are eligible for certification upgrades which are not being processed due to lack of program funding. The following table shows the updated certification status of the rank and file employees in the positions requiring certification.

Position	PA DEP Certification
Plant Operator - Day	A,E – 2,4
Plant Operator - Evening	A,E – 2,4
Plant Operator - Night	E - 4 Passed exam A – 2
Plant Operator - Rotating	A,E – 2,4
Pump Tender – Day	A,E - 2,4
Pump Tender - Evening	A,E - 2,4
Pump Tender - Night	A,E - 2,4
Pump Tender – Rotating	Due 05/31/2012
Solids Operator - Day	Due 06/16/2010 Extension - PA DEP issue
Solids Operator - Evening	Due 01/04/2012

The City also has certified employees in positions not requiring certification. This is being reported as it is beneficial to the City to have certified personnel in a variety of positions who understand how their actions impact the system as a whole.

Position	PA DEP Certification
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Maintenance Worker	Passed exam E - 4
WWTP Service Utility	E - 4
System Equipment Operator 2	E - 4

Additional WWTP Upgrades –

Although not specifically discussed in the Consent Decree, the following upgrades are being included in the WWTP upgrades for technical and operational necessity of the required improvements.

New WWTP Outfall – During the first quarter of 2009, the City realized the need for a new outfall as B&V had done additional investigation on the current outfall pipe compared to the design flows for the WWTP upgrades. B&V has contacted PA DEP regarding the design constraints for this to be included in the WWTP upgrades. This will require additional permitting and coordination as the outfall is currently submerged below the Schuylkill River and proposed to remain

that way. The update on this progress will be included in the B&V summary as it is included in the WWTP design contract. This is part of the re-evaluation and reprioritization of WWTP capital projects.

Operations and Maintenance

Computerized Maintenance Management System (CMMS) for Collection

System– To adequately perform and document an ongoing infiltration and inflow program, catalog televisual inspection, and track service calls and repairs in the collection system, the City determined the need for a formal method to catalog the information. Geographical documentation of this information was selected as the preferred method for the database structure. The communication speed which had halted progress on this system has been resolved. Woolpert has been notified of the communication speed improvements and the need to restart this project.

The static database of City information Woolpert has prepared for testing and training purposes requires updating as one of the first steps to restart this project.

42" Force Main and WWTP Influent Routing –This conveyance is impacted by the hydraulics with the WWTP design and has been reviewed by the City and the PM/CM team. Due to the WWTP upgrades impact on hydraulics and the collection system in this area, this must be addressed to not impact the design and construction schedule for the WWTP. This topic was discussed with City Council on several occasions as well as a public meeting conducted on May 27, 2009. On June 8, 2009, Council voted to authorize and direct B&V to incorporate the tunnel option into the WWTP design. Preliminary engineering and planning for additional geotechnical investigation continued with a formal Notice to Proceed issued on September 28, 2009 while the contract amendment was being negotiated between B&V and the City. Based upon the affordability analysis discussed in Financing below, the City is evaluating alternatives to the capital-intensive tunnel option.

Laboratory and Administration

Land and Building – The City purchased a parcel of land in 2005 adjacent to the wastewater treatment plant to be used for the construction of a new building for the administration, laboratory, and collection system. The City purchased a second adjacent parcel in March 2007. The City intended to construct a LEED-certified, 'green' building and an access bridge across the Mifflin Arm of the Schuylkill River to the WWTP. On February 23, 2009 City Council awarded the civil engineering services contract to Herbert, Rowland & Grubic (HRG) and the architectural services contract to Seiler + Drury (S+D). Conditional final plan approval for phase one was received at the September 14, 2009 PC meeting with the Township Commissioners approving the project at their September 15, 2009 meeting. During the second quarter, the demolition of the existing homes and structures began. Also, the final permitting approval was received in preparation for the plan recording. The City received the final plans for signatures by the City, City Planning Commission, Cumru Township Planning Commission, and Cumru Township Commissioners. No additional work has proceeded on this project which has been halted with the capital reprioritization.

Administrative

Contributing Municipalities - The City and B&V met individually with the municipalities that contribute flows to the City's wastewater system and plant to provide background information and the City's current status including technical information related to the Consent Decree requirements. In addition to the Consent Decree requirements for plant upgrades and system projects, the need for municipal adoption of the City's sewer use ordinance was discussed as well as the need for ongoing communication regarding non-residential customers both being related to the industrial pretreatment program. Finally, the process for planning for new development and flow increases and the requirement to use PA DEP planning modules was discussed.

Field meetings were conducted in the spring and summer of 2008 to inspect each connection point, metering location, and terminal pumping stations to the City system as well as available mapping for the system. This information is being used to develop more accurate service area mapping by connection point. Follow-up meetings have been conducted to view interconnection points between contributing municipalities and additional information requests have been made based upon the findings of each meeting.

The City solicited proposals from legal firms to assist in the evaluation of the existing Intermunicipal agreements (IMAs) and the renegotiation of new IMAs. Proposals were received on May 27, 2009 with review, interviews, and selection expedited prior to the June 8, 2009 Council award of contract. Fox Rothschild reviewed the City's existing IMAs and other wastewater IMAs, met with the City's committee, drafted revised and reorganized IMAs for review, and met informally with larger bulk municipal customers. The new IMAs have been presented to the municipalities to begin discussions. Questions and requests for information from the municipalities are being handled as they are received. Counsel has experienced some resistance and lack of cooperation from municipalities. We will keep US DoJ abreast of these developments and may ask for assistance with these negotiations.

Funding - Some key aspects of funding clarification were added to the RFP for the WWTP PM team discussed above in paragraph 20. Grant funding is included in the PM/CM update that follows. The City learned on July 13, 2009 that they were awarded a \$5 million grant for the 6th and Canal conveyance in the first round of H2O PA grants. Research was conducted to determine the action required for release of \$500,000 each in the form of US EPA STAG grants designated for the City in the federal budget years 2009 and 2010. Meetings were conducted by the PM team with various agencies regarding financing the capital improvements.

Financing - The City and its support team has been working to determine the rate impact on the users based upon the financing required for the projects. The needs for going to the bond market are being reviewed and prepared. From the technical aspect, an engineer's report is required to obtain the revenue bonds. B&V was retained to perform an affordability analysis initially followed by a cost of service and rate design study. This involves confirming the revenue streams and their projected stability as part of a phased approach to evaluate the City's rate structure and the financial impact of the capital financing on the existing rate payers.

Response Times and Clarifications – The City continues to work in good faith on compliance issues outlined within the Consent Decree. There is concern regarding delays in regulatory responses for questions posed during meetings or within progress reports. As investigative field work in the collection system intensifies, previously identified concerns regarding timeline discrepancies within the Consent Decree become more evident. Clarification is critical to allow the City to balance the allocation of human and financial resources in efforts to maintain compliance.

NPDES Permits and Limits – A May 28, 2009 NPDES draft permit was received from PA DEP for the permit which expired on May 1, 2006. The City issued a comment letter and met with the permit writer to prepare for the final discharge permit issuance. Another draft permit was received electronically on December 3, 2009. The City has concerns with the dependency and inclusion of capital projects in this operating permit.

VI. REPORTING REQUIREMENTS

41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.

Charles M. Jones, P.E.
Public Works Director

Date

Black & Veatch WWTP Design Engineering Progress Report Second Quarter 2010 Summary

Project Management

- Coordinated with subconsultants to closeout invoicing and project activities.
- Performed administrative tasks including invoicing and project documentation.
- Provided files associated with subpoena for lawsuit between original surveyor (contracted directly by City) and the City of Reading.

Design

- No work under this task during this period.

Permitting

- No work under this task during this period.

Site Investigations

- No work under this task during this period.

Geotechnical Services

- No work under this task during this period.

Tunnel / Influent Pump Station Design

- As requested by the City, performed packer testing and downhole imaging of select borings along the tunnel alignment.

Project Shutdown

- Based on directive from City to stop work, coordinated project closeout activities.

Consulting on Next Steps

- Contacted Managing Director regarding course and scope of project.

Hill International/Weston Solutions/Hazen & Sawyer
WWTP Upgrades PM/CM
Second Quarter 2010 Progress Report

Project Management (Hill):

- Performed required administrative functions: meeting coordination, project correspondence, invoice preparation, subcontractor and client scheduling coordination; reviewed project documents (Consent Decree, Treatment Alternatives Report, and Legal Agreements, Cost of Services scope of work).
- Participated in teleconferences and meetings with City Manager, City officials and PM/CM team regarding WWTP high priority projects, design contract deliverables, Municipal Agreements and Act 537 Plan.
- Reviewed correspondence from City Attorney (DoJ response); prepared a conceptual Amended Consent Decree Plan.
- Researched Consent Decree and prepared correspondence to City Manager.
- Updated Capital Improvements Plan, Actions Needed log and Master Timeline deliverables.
- Updated Draw Schedule.
- Discussed grant funding strategy/options w/ PM grant coordinator (i.e. H20 Grant Funding Strategy).
- Performed required administrative functions: progress meeting coordination, project correspondence, invoice preparation, subcontractor and client scheduling coordination; reviewed project documents.
- Participated in teleconferences and meetings with City Manager, City officials and PM/CM team regarding WWTP high priority projects (identification and financing strategy).
- Prepared an Amended Consent Decree Plan including discussions and draft correspondence for City Manager (roles/missions).
- Provided weekly updates to City Manager and briefing to Special Advisor to the Mayor.
- Reviewed grant funding correspondence with PM/CM team.
- Participated in project site visit to the 19th Ward pump station.
- Updated Draw Schedule.
- Participated in Legal Agreement redline review.
- Discussed grant funding strategy/options w/ PM grant coordinator (i.e. H20 Grant Funding Strategy).
- Performed required administrative functions: progress meeting coordination, project correspondence, invoice preparation, subcontractor and client scheduling coordination; reviewed project documents.
- Participated in teleconferences and meetings regarding project deliverables.
- Provided assistance regarding project contracts and Consent Decree.
- Reviewed EPA STAG Grant with City and PM/CM team.

- Provided DoJ draft letter input, facilitated discussions and prepared correspondence.
- Updated Project Deliverables: Amended Consent Decree Plan, Master Timeline, Project Schedule, action items log, and draw schedule.
- Reviewed draft project descriptions and scope (high priority projects) and updated project schedule.
- Discussed PA H2O Grant Funding options, reviewed draft application, finalized submission and correspondence.

Project Controls (Hill):

- Performed required administrative functions: invoice preparation and invoice tracking log.
- Updated Draw Schedule.
- Updated conceptual Amended Consent Decree deliverable.
- Performed required administrative functions: email account organization, invoice preparation and invoice tracking log.
- Updated Draw Schedule and Capital Improvements Plan graphic.
- Updated Master Timeline and Amended Consent Decree Plan.
- Performed required administrative functions: email account organization, invoice preparation, compile and create master timeline schedule and invoice tracking log.
- Updated Draw Schedule and Capital Improvements Plan graphic.
- Updated Master Timeline and Amended Consent Decree Plan.

Value Engineering: N/A

Design Review/Tech Support (Hazen-Sawyer and Weston):

- Prepared scope of work for Revised Existing Plant Process Evaluation Report, Evaluation of Treatment Alternatives Report, and Capital Improvements Plan.
- Participated in meetings with City and PM regarding above Reports and Plan.
- Finalized scope of work for above Reports and Plan.
- Prepared revised scope of work for Revised Existing Plant Process Evaluation Report, Evaluation of Treatment Alternatives Report, and Capital Improvements Plan.
- Participated in meetings with City and PM regarding above Reports and Plan.
- Finalized scope of work for above Reports and Plan.
- Provided grant and funding assistance related to PA H2O grant including two site meetings with plant superintendent.
- Provided technical assistance related to high priority projects, particularly 42-inch Force Main.
- Provided technical assistance related to contracts.
- Provided technical assistance related to Consent Decree.

Regulatory Compliance: N/A

Grant Funding (Duane Morris):

- Participated in numerous calls with PennVEST representatives and others regarding project funding.
- Communication with PennVEST representatives and others regarding project registration and funding.
- Worked on PA H2O Application and related funding issues as well as EPA STAG funding.

Financial Analysis (PFM): N/A

Public Relations (Weston): N/A

Surveying: N/A

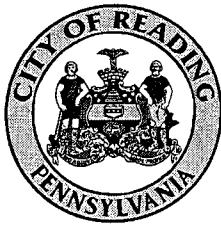
Construction Management (Weston): N/A

Resident Engineer: N/A

Inspection: N/A

Health and Safety: N/A

Start-up: N/A



CITY OF READING, PENNSYLVANIA

PUBLIC WORKS
503 N. 6TH STREET
READING, PA 19601
(610) 655-6236

CHARLES M. JONES
PUBLIC WORKS DIRECTOR

October 28, 2010

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476

Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
3rd Quarter 2010

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This report documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6236 should you have any comments or questions.

Sincerely,

A handwritten signature in cursive script that reads "Charles M. Jones".

Charles M. Jones, PE
Public Works Director

CMJ/ts
Enclosure

C: Christopher A. Day, Esq., US EPA
Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Carl Geffken, Interim Managing Director
Deborah A.S. Hoag, P.E., Utilities Manager
Ralph E. Johnson, Superintendent
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**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending September 30, 2010**

V. REMEDIAL MEASURES

A. General Duties

7. Duty to Comply with Permit – The City's wastewater treatment plant was in compliance with NPDES permit parameters.

8. Operation and Maintenance of the Facility – No report.

B. Interim Measures

9. Interim Compliance – Environmental Management System

(b) Maintenance Management System – No report.

(c) Supervisory Control and Data Acquisition (SCADA) system

2. Upgrades to SCADA System – During this past quarter the City refined and upgrade parts of the existing SCADA system's applications, software and hardware. Additional work will be conducted during this next quarter.

(d) Pretreatment Data Management System – Continuing progress. The City continues the use of a commercial pretreatment database as well as an abbreviated spreadsheet for simplicity and verification.

10. Interim Plant Influent Monitoring – No report.

11. Interim Trickling Filter Performance Measures – This was completed.

(a) Performance Improvements – During this past quarter the City attempted some modified recirculation rates and determined that the existing settings are better. We also evaluated possible trickling filter mechanical ventilation but the concept is not practical. Some secondary trickling filter process control modifications will be evaluated during this next quarter, and some malfunctioning tertiary aeration tank blow-off valves' will be replaced.

(d) Longer Term Monitoring and Reporting – The City continues to use the modified sampling locations as approved, and evaluation of the data has become part of the management and operations routine.

12. Process Control Testing – A local wastewater company, Brentwood, has had a pilot plant operation setup at the City's WWTP site for some time now. A cooperative arrangement is in place for data and information swapping so that both the City and Bentwood benefit.

13. Dangerous Gas Detection – No report.

14. Certified Plant Operators – The City currently has six shift supervisors who are appropriately PaDEP certified and cover operations 24/7. Additionally, all managers and numerous rank and file team members are appropriately PaDEP certified, and there are others who are partially certified.

15. Operations and Maintenance Plan – No report.

16. Staffing Plan – No report.

17. Interim Wet Weather Operational Strategy – No report.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – A DRAFT Existing Plant Process Re-evaluation Report has been submitted to the City with the final version due in the next quarter. If applicable, a revised Evaluation of Treatment Alternatives Report is due to the City during the next quarter, and an updated Capital Improvements Plan is scheduled for submittal to the City the first quarter of 2011.

The City is also re-evaluating the former tunnel and new pump station (Tunnel) project to replace the Sixth and Canal Pump Station (6&CPS) and 42" force main (FM). The reasoning for this re-evaluation is similar to the previously described reasons for the wastewater treatment plant (WWTP) re-evaluation. As part of the Tunnel re-evaluation the City has entered into an engineering agreement with Weston Solutions to perform a PNDI study of the FM route in preparation for a revised alternatives analysis of the Tunnel project. A hazardous materials study of the 6&CPS site is also under agreement by the City with Weston Solutions, as well as a hazardous materials study of WWTP. The 6&CPS hazardous materials study includes an in-depth investigation of the previously discovered ground contamination. Lastly, a 6&CPS re-evaluation with alternatives analysis agreement is being negotiated with Hazen and Sawyer, and a FM re-evaluation with alternatives analysis is being negotiated with Weston Solutions. We are targeting to have the Tunnel re-evaluation completed during the first half of 2011, pending the PNDI and hazardous materials studies.

(a) Existing Plant Process Evaluation Report – As stated above, a DRAFT Existing Plant Process Re-evaluation Report has been submitted to the City with the final version due in the next quarter. The City plans to present the final version of this Existing Plant Process Re-evaluation Report to the Department of Justice (DoJ) United States Environmental Protection Agency (US EPA) and the Pennsylvania Department of Environmental Protection (PaDEP) during the next quarter.

(b) Evaluation of Treatment Alternatives Report – Based on the DRAFT Existing Plant Process Re-evaluation Report it appears there will be a reevaluation of treatment alternatives. A revised Evaluation of Treatment Alternatives Report is due to the City during the next quarter.

19. Capital Improvements Plan – The 90% complete initially approved alternative design will be completed, partially completed or replaced pending the Existing Plant Process Re-evaluation Report and a probable revised Evaluation of Treatment Alternatives Report. The City's Capital Improvements Plan decision will be impacted if the City's needs are different than previously concluded. If appropriate, an updated Capital Improvements Plan and schedule will be submitted to the City in the first quarter of 2011.

20. Request for Proposals – If appropriate the City will finish the design of select facilities already 90% designed. If different plant process' alternatives are appropriate the City will address the continued services of Black & Veatch and/or the selection of another designer or designers at that time.

21. Permit Applications and Design – No report.

22. Permitting – No report.

23. Construction Completion – No report.

24. Start-Up and Operation – No report.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. Following an expedited RFQ/RFP review process for interview and selection, City Council awarded a contract to Woolpert on August 24, 2009. The contract language was negotiated with execution by the last party completed on May 27, 2010. Woolpert arrived September 27, 2010 to begin the field data collection with a project kickoff meeting the following day. The initial work was a pilot phase with one crew to refine any system mapping and database issues prior to beginning phase one. Phase one is the larger diameter sanitary sewer system required for the hydraulic modeling with Phase two the remainder of the sanitary sewer collection system.

(c) **GIS Mapping of the Storm Water Collection System** - In progress. The third phase for field data collection and GIS mapping is the storm water system. This is included in the new GPS contract discussed above.

26. Sanitary Sewer System Evaluation Program

(a) **I/I Analysis by Subsystem**

The City continued investigating and updating the mapping required for the coordination of the collection system investigative, modeling, and rehabilitative work.

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction were completed by B&V for the I&I analysis. The hydraulic modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. *The City has concerns about the schedule for completing the modeling until the receipt of quality GPS data from Woolpert. This task is dependent upon the GIS mapping discussed above.* The hydraulic modeling requirements were discussed explicitly in the GPS pre-proposal conference with the phases of work to expedite the areas necessary for the hydraulic modeling. The pilot and first phase of the GPS project discussed in paragraph 25(b) provide the information required for this hydraulic modeling.

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The recently-established sanitary manhole numbering system is being refined as the smoke testing shows additional or missing manholes and will continue as the GPS field inventory progresses. The smoke testing contract was awarded by City Council on September 22, 2008. Smoke testing began with a kickoff meeting on August 6, 2009 and field work beginning August 24, 2009. A measured total of 625,142 lineal feet in 2647 manhole runs were smoke tested in the subareas being investigated for inflow. Since that has been completed, there are various types of follow-up tasks being completed by both the City and the contractor including: manhole verification for missing and additional manhole locations, dyed water tracing for suspected sources, and data compilation and organization for final reporting. Only a few minor areas remain to be field verified and numbered prior to the contractor compiling and submitting the final report and documentation.

27. Rehabilitation Plan – No progress. *The SSES was required to commence by May 7, 2008 while the dependent rehabilitation plan was due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – The City routinely reviews and updates this plan through reminder prompts within the CMMS, and/or after a major wet weather event. On September 30th through October 1st a major high flow event occurred and the Wet Weather Operation Plan is being modified based on our experience during that event.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-compliance for a given parameter for two consecutive quarters. As penalty escalation had not been detailed in the ERP, the City has documented the process and amounts for consistency and as a reference tool.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress. The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. This third quarter, two industries with long-term compliance issues have been working through municipal planning and permitting to construct on-site industrial pretreatment facilities.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the

municipalities with permitted industries have adopted the ordinance. Electronic versions of the City's sewer use ordinance had been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. This topic is included in the draft of the proposed inter-municipal agreements being discussed.

35. Non-Residential Connection Evaluation and Investigation – In progress. The City has been working with the contributing municipalities to obtain this information to survey and evaluate nonresidential users that may be added to the pretreatment program.

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns.

39. Quarterly SNC Reports to US EPA – In progress.

F. Funding

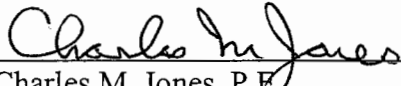
40. Funding – In progress. The 2011 budget is under City Council review and, as stated in the second quarter report, the budget contains the transfer of \$3,000,000 as stated in the consent decree. Of the \$11.5 million borrowed from the Sewer Fund in 2009, \$4.5 million has been repaid to date. The City petitioned the Court of Common Pleas on September 27 to allow the City to issue a maximum of \$20.0 million in unfunded debt to repay the Sewer Fund and other debts and expenses. The hearing is scheduled for October 28. On September 9, a separate account was created for sewer revenues and on September 30, all sewer monies were transferred into this account. The amount transferred was \$10.4 million. The City transferred its \$3,000,000 in September. In the fourth quarter, we will work toward receiving Court approval to issue a maximum of \$20.0 million. Once that approval is received, City Council will need to pass an ordinance allowing the Administration to move forward. We are planning to receive the proceeds from the unfunded debt issuance by November 30.

VI. REPORTING REQUIREMENTS

41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.



Charles M. Jones, P.E.
Public Works Director

Oct. 28, 2010
Date

**City of Reading
Wastewater Treatment Plant Upgrades
PM/CM Monthly Progress Report
Hill/Weston/Hazen and Sawyer**

July 2010 - Revised

The following tasks were worked on during this reporting period:

Task 11. Project Management (Hill)

- Performed required administrative functions: progress meeting coordination, project correspondence, invoice preparation, subcontractor and client scheduling coordination, and review of project documents.
- Developed Consent Decree Collection System Project Tracker and prepared PM/CM Amendments.
- Participated in teleconferences and meetings regarding: project deliverables, calls with prospective contractors/suppliers, federal funding/ Berks County Economic Partnership research and 6th and Canal Pump Station (6CPS) Environmental Investigations/Force Main Project.
- Provided assistance regarding project contracts and proposed Consent Decree Amendment.
- Coordinated EPA STAG Grant with City and PM/CM team.
- Reviewed Act 537 requirements.
- Updated Project Deliverables: Amended Consent Decree Plan, Master Timeline, Project Schedule, action items log, and draw schedule. Attended Existing Plant Process Evaluation kick-off meeting.
- Reviewed High Priority projects including 42" Force Main Feasibility Study and 6CPS Environmental Investigations.
- Reviewed PA H2O application.

Task 12. Project Controls (Hill)

- Performed required administrative functions: email account organization, invoice preparation, compiled and created Consent Decree Master Timeline, current insurance certs and invoice tracking log.
- Updated Draw Schedule, Consent Decree Projects Spreadsheet and Cash Flow Inputs.
- Updated Master Timeline, PM/CM Tasks Spreadsheet and Amended Consent Decree Plan flowchart.

Task 15. Design Review/Tech Support (Hazen Sawyer)

- Provided assistance to Fox Rothschild regarding Inter-Municipal Agreements.

Task 17. Grant Funding (Duane Morris)

- Guaranteed energy savings contracts/PA Act 39 of 2010.

**City of Reading
Wastewater Treatment Plant Upgrades
PM/CM Monthly Progress Report
Hill/Weston/Hazen and Sawyer**

August 2010

Executive Summary:

The PM/CM team continued work on several tasks that can ultimately support a Consent Decree Amendment as well as other wastewater treatment plant and supporting tasks. Work has begun on an Existing Plant Process Evaluation Report to comply with the requirements of Consent Decree paragraph 18a (Treatment Plant Alternatives Submission). Work continues on the existing 42" Force Main—assessing the pipe's current condition, identifying permitting impacts and coordinating with the appropriate regulatory agencies. Work continues on project specific grant funding tasks, most notably, preparing an amendment for the approved PA H2O grant received by the City. Additional work by the PM/CM team included analyzing the municipalities' flows and loadings and assessing their impacts on the Inter-Municipal Agreements. The team also assisted the City in responding to DoJ inquiries. A draft project schedule was prepared. It is expected that future work will include the refinement of the Existing Plant Process Evaluation Report, the force main alternatives evaluation, the assessment and identification of hazards at the 6th and Canal Pump Station as well as supporting legal and financial (grant funding) tasks.

A more detailed breakdown of the work effort follows.

Project Management (Hill)

- Prepared and/or finalized the following amendments: Force Main Environmental Assessment and 6th and Canal Pump Station (6CPS) Environmental Investigations, Force Main Alternatives Assessment, 6CPS Assessment, Fritz Island Hazmat Assessment and Grant Administration.
- Performed required administrative functions: progress meeting coordination, project correspondence, invoice preparation, subcontractor and client scheduling coordination, and review of project documents.
- Researched the permitting process and assessed schedule impacts to Weston's Environmental Assessment/Permitting Studies proposal.
- Coordinated/prepared City 537 Plan request, PA H2O Grant amendments, response to DoJ questions, and City purchasing requirements requests.
- Assessed plant flows/loadings and the associated impacts on the Inter-Municipal Agreement.
- Researched Primavera scheduling options for City.
- Provided assistance with project contracts, Consent Decree Amendment and Wyomissing legal letter.
- Coordinated EPA STAG Grants with City and PM/CM team; prepared DoJ Grant funding responses for the City.
- Participated in scheduled meetings: City Manager Updates, Existing Plant Process meeting.

- Discussed and reformatted the PM/CM invoice to comply with PA H2O invoice accounting requirements; prepared draft PM/CM Tasks-Costs spreadsheet.
- Prepared a draft project Master Schedule.

Project Controls (Hill)

- Performed required administrative functions: email account organization, invoice preparation, updated Consent Decree Master Timeline, PM/CM Tasks and Costs spreadsheet, current insurance certificates and invoice tracking log.
- Researched applicable project permitting tasks and incorporated them on the master schedule.
- Revised project schedule and updated and produced plot for presentation to City.

Design Review/Tech Support (Hazen and Sawyer)

- Provided technical support regarding Act 537 related items.
- Met with the City regarding the Consent Decree.

Existing Plant Process Evaluation Report (Phase 1)(Hazen and Sawyer)

- Provided project coordination services.
- Accumulated data and information for the existing plant.
- Performed Berks County File Review.
- Analyzed DMR data and prepared for model.
- Continued influent characterization historical data analysis.
- Prepared internal draft of solids chapter.
- Continued to revise Hydraulic Model to match existing conditions.

Evaluation of Treatment Alternatives (Hazen and Sawyer)

- Coordinated pilot testing protocol reviews.
- Attended pilot testing meeting and teleconferences.

Force Main (42") Alternatives Evaluation (Weston and Duane Morris)

- Conducted pre-bid site walk, meetings at City of Reading offices, and site meetings.
- Developed scope, technical evaluations, cost estimating, and associated communications and correspondences pertaining to the 42-in Force Main Alternatives Analysis.
- Prepared Environmental Assessment and Environmental Investigation proposal.
- Prepared draft scope of work for grant administration.
- Prepared information on use of H2O Grant funds.
- Prepared response regarding updated funding matrix and H2O Grant Application II Summary.
- Prepared draft H2O PA Grant Amendment request; revised H2O Grant Amendment request.
- Reviewed IMA comments and assessed IMA impacts regarding flows and loadings.
- Participated in updated to the City Manager regarding Phase I.

Grant Administration (Duane Morris)

- Reviewed Notice to Proceed and next steps regarding grant administration.
- Participated in kickoff grant administration kickoff teleconference.
- Prepared a presentation for September 2nd meeting with City.
- Participated in teleconference with DCED regarding administration of the H2O Grant.

6CPS Assessment (Hazen and Sawyer)

- Provided technical support regarding the Sixth and Canal Pumping Station.

Cost Estimating, Value Engineering, Regulatory Compliance, Grant Funding, Financial Analysis, Public Relations, Surveying, Construction Manager, Resident Engineer, Inspection, Health and Safety, Start-up: N/A

**City of Reading
Wastewater Treatment Plant Upgrades
PM/CM Monthly Progress Report
Hill/Weston/Hazen and Sawyer**

September 2010

Executive Summary:

The PM/CM team continued work on Consent Decree related tasks as well as other supporting wastewater treatment plant tasks. A draft Existing Plant Process Evaluation Report was published and work began on the Evaluation of Treatment Alternatives. A scope of work was prepared to assess the condition of the 6th and Canal Pump Station. Additionally, a PNDI evaluation was completed in support of the Force Main Alternatives Evaluation and discussions continued with the regulatory agencies. Work began at the 6th and Canal Pump Station, assessing the pump station for hazardous materials and defining the extent of the contamination at the site. Preliminary work commenced at Fritz Island in support of a hazardous materials assessment. Grant funding and administration tasks in support of the PA H2O grant continued. The PM/CM team also supported the City in responding to DoJ information requests as well as assisting the City with an analysis of the municipalities' flows and loadings and their impacts on the inter-municipal agreements. The draft project schedule was updated. It is anticipated that critical items of future work will include: further refinement of the Existing Plant Process Evaluation Report and Treatment Alternatives, continued progress on the force main alternatives analysis and the assessment of the Fritz Island and 6CPS facilities for potential hazardous materials.

A more detailed task breakdown of the September work effort follows.

Project Management (Hill)

- Reviewed and submitted Hazen and Sawyer's 6CPS Assessment Scope, Weston's Fritz Island wwtp HazMat proposal; reviewed Hazen & Sawyer's Phase 1 Report and participated in the Phase 1 brief.
- Participated in a 6CPS Environmental Investigations teleconference and site visit.
- Reviewed Weston's draft project schedule.
- Performed project coordination for: PA H2O Amendment, EPA STAG Grants, 6CPS Assessment; participated in PA H2O amendment discussions regarding the Force Main project.
- Discussed flow allocations and Inter-Municipal Agreement (IMA) impacts with the City.
- Assisted the City in DoJ communications, including preparing comments for the City's response letter.
- Performed project document review regarding affordability analysis, Pro Forma model, and IMA.
- Finalized PM/CM amendment tasks and invoicing guidance.
- Reviewed PUC wastewater rates document and participated in teleconference regarding PM/CM amendment coordination, 6CPS and Force Main.
- Prepared for and attended required meetings: City Manager Updates, legal team meeting.

- Performed required administrative functions: progress meeting coordination, project correspondence, invoice preparation, subcontractor and client scheduling coordination.

Project Controls (Hill)

- Performed required administrative functions: invoice preparation, updated Consent Decree Master Timeline, PM/CM Tasks and Costs spreadsheet, current insurance certificates and invoice tracking log.

Design Review/Tech Support (Hazen and Sawyer)

- Provided technical assistance for a letter to the Department of Justice.
- Provided technical support regarding Inter-Municipal Agreements.

Existing Plant Process Evaluation Report (Phase I)(Hazen and Sawyer)

- Provided project coordination and reviewed Primary Trickling Filter Recirculation.
- Prepared and issued a draft of the Phase I Existing Plant Capacity Report.

Evaluation of Treatment Alternatives (Hazen and Sawyer)

- Reviewed Pilot Testing Procedures, Primary Trickling Filter Recirculation and potential Full Scale Pilot.
- Attended pilot testing meeting and teleconferences.

Force Main (42") Alternatives Evaluation (Weston and Duane Morris)

- Prepared draft schedule, conducted desktop evaluation of Force Main and identified additional data needs.
- Conducted a site walk, refinement of scope, technical evaluations, cost estimating, and associated communications and correspondences pertaining to the Force Main Alternatives Analysis, Environmental Assessment, and Environmental Investigations.
- Provided revisions to and discussed H2O PA Grant Amendment letter.
- Participated in teleconference and meeting with DECD regarding City's letter requesting an amendment to the H2O PA Grant and various amendment issues.

Force Main Environmental Assessment (Weston)

- Started permit evaluation process for alternatives of the Force Main rehabilitation/replacement through communications with PADEP and USACE.
- Completed PNDI evaluation.

6CPS Environmental Investigations & Hazmat Survey (Weston)

- Started the Hazardous Materials assessment of 6th and Canal Street Pump Station.
- Started planning for the soil boring investigations of 6th and Canal Street Pump Station.